




**Dayananda Sagar College of Dental Sciences,**  
**Shavige Malleshwara Hills, Kumaraswamy Layout,**  
**Bengaluru**

**DVV clarification of key matrix 2.5.4**

**Document showing more supportive documents of timely  
administration of CIE including:**

- 1. Dates of conduct of internal assessment examination - Pg No:1-19**
- 2. Office orders for CIE - Pg No:20-43**
- 3. Sample question papers and attendance sheets of CIE - Pg No:44-91**
- 4. Sample CIE answer scripts - Pg No:92-432**

Data provided in the document as above is authenticated by me.


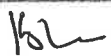
  
Principal  
**PRINCIPAL**  
Dayananda Sagar College of Dental Sciences  
Kumaraswamy Layout,  
Bangalore - 560 078.



**Dayananda Sagar College of Dental Sciences**  
Shavige Malleshwara Hills, Kumaraswamy Layout, Bangalore - 78

June 18, 2022

**Internal Assessment Theory Examination Time Table for Reg. Batch 2021-22**

Sl. No.	Subject	I Internal	II Internal	III Internal	Signature
<b>I BDS Regular Batch 2021-22</b>					
1	General Anatomy	04-07-2022	05-09-2022	02-11-2022	
2	Physiology & Biochemistry	05-07-2022	06-09-2022	03-11-2022	
3	Dental Anatomy	11-07-2022	07-09-2022	04-11-2022	

- Note:** 1. Theory exams will be centralized & as per university pattern for 70 marks for 3 hour duration.  
2. Practicals: All three internal assessments have to be conducted during the respective Practical / clinical hours except for pre-clinical prosthodontics, conservative, GM & GS  
3. Theory & clinical/practicals will remain suspended during the above mentioned timings.  
4. Timings for II BDS & III BDS 9:00am to 12:00noon, I BDS and IV BDS, 1:30pm to 4:30pm



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June 20, 2022

**Revised Internal Assessment Theory Examination Time Table for  
2021-22 Regular Batch**

Sl. No.	Subject	I Internal	Final Internal	Signature
<b>II BDS</b>				
1	Gen. Pathology & Microbiology	14-06-2022	11-07-2022	
2	Pharmacology	15-06-2022	12-07-2022	
3	Dental Materials	16-06-2022	13-07-2022	Ud
<b>III BDS</b>				
1	Oral Pathology	14-06-2022	04-07-2022	h
2	General Surgery	15-06-2022	05-07-2022	
3	General Medicine	16-06-2022	11-07-2022	
<b>IV BDS</b>				
1	Oral Medicine	14-06-2022	04-07-2022	PP
2	Orthodontics	15-06-2022	05-07-2022	Rev. HOD
3	Pedodontics	16-06-2022	06-07-2022	M.S. Reddy
4	Prosthodontics	17-06-2022	07-07-2022	Ud
5	Conservative Dentistry	20-06-2022	08-07-2022	Ud
6	Oral Surgery	21-06-2022	11-07-2022	Ud
7	Periodontics	22-06-2022	12-07-2022	Ud
8	Public Health Dentistry	23-06-2022	13-07-2022	A.N.
<b>II BDS Practical</b>				
1	Pre-clin Cons -Batch A Pre-clinl Prosth- Batch B	20-06-2022	04-07-2022	Ud
2	Pre-clin Cons -Batch A Pre-clinl Prosth- Batch B	21-06-2022	05-07-2022	Ud
<b>III BDS Practical</b>				
1	General Surgery	22-06-2022	13-07-2022	
2	General Medicine	23-06-2022	14-07-2022	

**Note:**

1. Theory exams will be centralized & as per university pattern for 70 marks for 3 hour duration.
2. Practicals: All three internal assessments have to be conducted during the respective Practical / clinical hours except for pre-clinical prosthodontics, conservative, GM & GS
3. Theory & clinical/practicals will remain suspended during the above mentioned timings.
4. Timings for II BDS & III BDS 9:00am to 12:00noon, I BDS and IV BDS, 1:30pm to 4:30pm

  
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December 28, 2021

**Second Revision 2nd Internal Assessment Theory Examination Time Table for  
2021-22 Odd Batch**

I BDS					
Sl. No.	Subject	I Internal Odd 2021- 22	II Internal Revised Dates	III Internal	Signature
1	General Anatomy	18-08-2021	10-01-2022	14-02-2022	
2	Physiology & Biochemistry	19-08-2021	11-01-2022	15-02-2022	<i>[Signature]</i>
3	Dental Anatomy	23-08-2021	12-01-2022	16-02-2022	<i>[Signature]</i>
II BDS					
1	Gen. Pathology & Microbiology	18-08-2021	10-01-2022	14-02-2022	<i>[Signature]</i>
2	Pharmacology	19-08-2021	11-01-2022	15-02-2022	<i>[Signature]</i>
3	Dental Materials	23-08-2021	12-01-2022	16-02-2022	<i>[Signature]</i>
III BDS					
1	Oral Pathology	18-08-2021	10-01-2022	14-02-2022	<i>[Signature]</i>
2	General Surgery	19-08-2021	11-01-2022	15-02-2022	
3	General Medicine	23-08-2021	17-01-2022	16-02-2022	
IV BDS					
1	Oral Medicine	18-08-2021	10-01-2022	14-02-2022	<i>[Signature]</i>
2	Orthodontics	19-08-2021	11-01-2022	15-02-2022	<i>[Signature]</i>
3	Pedodontics	23-08-2021	12-01-2022	16-02-2022	<i>[Signature]</i>
4	Prosthodontics	24-08-2021	13-01-2022	17-02-2022	<i>[Signature]</i>
5	Conservative Dentistry	25-08-2021	17-01-2022	18-02-2022	<i>[Signature]</i>
6	Oral Surgery	26-08-2021	18-01-2022	21-02-2022	<i>[Signature]</i>
7	Periodontics	27-08-2021	19-01-2022	22-02-2022	<i>[Signature]</i>
8	Public Health Dentistry	30-08-2021	20-01-2022	23-02-2022	<i>[Signature]</i>
II BDS Practical					
1	Pre-clin Cons -Batch A Pre-clinl Prostho- Batch B	23-08-2021	17-01-2022	21-02-2022	<i>[Signature]</i>
2	Pre-clin Cons -Batch A Pre-clinl Prostho- Batch B	24-08-2021	18-01-2022	22-02-2022	<i>[Signature]</i>
III BDS Practical					
1	General Surgery	25-08-2021	12-01-2022	23-02-2022	
2	General Medicine	26-08-2021	13-01-2022	24-02-2022	

- Note:
1. Theory exams will be centralized & as per university pattern for 70 marks for 3 hour duration.
  2. Theory / Practical will be off line and the department shall ensure the covid protocols are maintained. Subject In-charges shall be responsible for conducting the examinations and submission of marks to the office.
  3. Practicals: All three internal assessments have to be conducted during the respective Practical / clinical hours except for pre-clinical prostho, conservative, GM & GS
  4. Theory & clinical/practicals will remain suspended during the above mentioned timings.
  5. Timings- 2nd Internals 1:30pm to 4:30pm All Years, 3rd Internals I BDS & III BDS 9:00am to 12:00noon, II BDS and IV BDS, 1:30pm to 4:30pm

*[Signature]*

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November 24, 2021

Internal Assessment Theory Examination Time Table for  
2021-22 Odd Batch

I BDS					
Sl. No.	Subject	I Internal Odd 2021- 22	II Internal Revised Dates	III Internal	Signature
1	General Anatomy	18-08-21	03-01-22	14-02-22	
2	Physiology & Biochemistry	19-08-21	04-01-22	15-02-22	
3	Dental Anatomy	23-08-21	05-01-22	16-02-22	
II BDS					
1	Gen. Pathology & Microbiology	18-08-21	03-01-22	14-02-22	
2	Pharmacology	19-08-21	04-01-22	15-02-22	
3	Dental Materials	23-08-21	05-01-22	16-02-22	
III BDS					
1	Oral Pathology	18-08-21	03-01-22	14-02-22	
2	General Surgery	19-08-21	04-01-22	15-02-22	
3	General Medicine	23-08-21	05-01-22	16-02-22	
IV BDS					
1	Oral Medicine	18-08-21	03-01-22	14-02-22	
2	Orthodontics	19-08-21	04-01-22	15-02-22	
3	Pedodontics	23-08-21	05-01-22	16-02-22	
4	Prosthodontics	24-08-21	06-01-22	17-02-22	
5	Conservative Dentistry	25-08-21	07-01-22	18-02-22	
6	Oral Surgery	26-08-21	10-01-22	21-02-22	
7	Periodontics	27-08-21	11-01-22	22-02-22	
8	Public Health Dentistry	30-08-21	12-01-22	23-02-22	
II BDS Practical					
1	Pre-clin Cons -Batch A Pre-clinl Prosthodontics- Batch B	23-08-21	10-01-22	21-02-22	
2	Pre-clin Cons -Batch B Pre-clinl Prosthodontics- Batch A	24-08-21	11-01-22	22-02-22	
III BDS Practical					
1	General Surgery	25-08-21	12-01-22	23-02-22	
2	General Medicine	26-08-21	13-01-22	24-02-22	

- Note:**
1. Theory exams will be centralized & as per university pattern for 70 marks for 3 hour duration.
  2. Theory / Practical will be off line and the department shall ensure the covid protocols are maintained. Subject In-charges shall be responsible for conducting the examinations and submission of marks to the office.
  3. Practicals: All three internal assessments have to be conducted during the respective Practical / clinical hours except for pre-clinical prosthodontics, conservative, GM & GS
  4. Theory & clinical/practicals will remain suspended during the above mentioned timings.
  5. Timings for I BDS & III BDS 9:00am to 12:00noon, II BDS and IV BDS, 1:30pm to 4:30pm

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Bangalore



05-08-21

Internal Assessment Theory Examination Time Table for  
2020 - 21 REGULAR BATCH (I BDS to III BDS) and 2021-22 Odd Batch

I BDS					
Sl. No.	Subject	I Internal Odd 2021-22	II Internal	III Internal Reg. 2020-21	Signature
1	General Anatomy	18-08-21		18-08-21	<i>[Signature]</i>
2	Physiology & Biochemistry	19-08-21		19-08-21	<i>[Signature]</i>
3	Dental Anatomy	23-08-21		23-08-21	<i>[Signature]</i>
II BDS					
1	Gen. Pathology & Microbiology	18-08-21		18-08-21	<i>[Signature]</i>
2	Pharmacology	19-08-21		19-08-21	<i>[Signature]</i>
3	Dental Materials	23-08-21		23-08-21	<i>[Signature]</i>
III BDS					
1	Oral Pathology	18-08-21		18-08-21	<i>[Signature]</i>
2	General Surgery	19-08-21		19-08-21	
3	General Medicine	23-08-21		23-08-21	
IV BDS					
1	Oral Medicine	18-08-21			<i>[Signature]</i>
2	Orthodontics	19-08-21			<i>[Signature]</i>
3	Pedodontics	23-08-21			<i>[Signature]</i>
4	Prosthodontics	24-08-21			<i>[Signature]</i>
5	Conservative Dentistry	25-08-21			<i>[Signature]</i>
6	Oral Surgery	26-08-21			<i>[Signature]</i>
7	Periodontics	27-08-21			<i>[Signature]</i>
8	Public Health Dentistry	30-08-21			<i>[Signature]</i>
II BDS Practical					
1	Pre-clin Cons -Batch A Pre-clinl Prosthodontics - Batch B	23-08-21		23-08-21	<i>[Signature]</i>
2	Pre-clin Cons -Batch A Pre-clinl Prosthodontics - Batch B	24-08-21		24-08-21	<i>[Signature]</i>
III BDS Practical					
1	General Surgery	25-08-21		25-08-21	
2	General Medicine	26-08-21		26-08-21	

- Note:**
1. Theory exams will be centralized & as per university pattern for 70 marks for 3 hour duration.
  2. Theory / Practical will be off line and the department shall ensure the covid protocols are maintained. Subject In-charges shall be responsible for conducting the examinations and submission of marks to the office.
  3. Practicals: All three internal assessments have to be conducted during the respective Practical / clinical hours except for pre-cinical prosthodontics, conservative, GM & GS
  4. Theory & clinical/practicals will remain suspended during the above mentioned timings.
  5. Timings for I BDS & III BDS 9:00am to 12:00noon, II BDS and IV BDS, 1:30pm to 4:30pm

*[Signature]*

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08/12/2021

**Revised III Internal Assessment Theory Examination Time Table for  
2020 - 21 ODD BATCH**

I BDS					
Sl. No.	Subject	I Internal	II Internal	III Internal	Signature
1	General Anatomy		21-12-20	15-02-21	
2	Physiology & Biochemistry		22-12-20	16-02-21	
3	Dental Anatomy		23-12-20	17-02-21	
II BDS					
1	Gen. Pathology & Microbiology		21-12-20	17-02-21	
2	Pharmacology		22-12-20	18-02-21	
3	Dental Materials		23-12-20	19-02-21	
III BDS					
1	Oral Pathology		21-12-20	19-02-21	
2	General Surgery		22-12-20	15-02-21	
3	General Medicine		28-12-20	16-02-21	
IV BDS					
1	Oral Medicine		21-12-20	15-02-21	
2	Orthodontics		22-12-20	16-02-21	
3	Pedodontics		23-12-20	17-02-21	
4	Prosthodontics		24-12-20	18-02-21	
5	Conservative Dentistry		28-12-20	19-02-21	
6	Oral Surgery		29-12-20	22-02-21	
7	Periodontics		30-12-20	23-02-21	
8	Public Health Dentistry		31-12-20	24-02-21	
II BDS Practical					
1	Pre-clin Conservative		28-12-20	15-02-21	
2	Pre-clinl Prosthodontics		29-12-20	16-02-21	
III BDS Practical					
1	General Surgery		23-12-20	17-02-21	
2	General Medicine		24-12-20	18-02-21	

- Note:**
1. Theory exams will be centralized & as per university pattern for 70 marks for 3 hour duration.
  2. Theory / Practical will be off line and the department shall ensure the covid protocols are maintained. Subject In-charges shall be responsible for conducting the examinations and submission of marks to the office.
  3. Practicals: All three internal assessments have to be conducted during the respective Practical / clinical hours except for pre-cinical prosthodontics and conservative.
  4. Theory & clinical/practicals will remain suspended during the above mentioned timings.
  5. Timings for I BDS to III BDS 9:00am to 12:00noon, IV BDS, 1:30pm to 4:30pm

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Dayananda Sagar College of Dental Sciences  
Shavige Malleshwara Hills, Kumaraswamy Layout, Bangalore - 78

30/01/2021

Internal Assessment Theory Examination Time Table for  
2020 - 21 REGULAR BATCH

I BDS					
Sl. No.	Subject	I Internal	II Internal	III Internal	Signature
1	General Anatomy	02-04-21			
2	Physiology & Biochemistry	06-04-21			
3	Dental Anatomy	08-04-21			
II BDS					
1	Gen. Pathology & Microbiology	17-02-21			
2	Pharmacology	18-02-21			
3	Dental Materials	19-02-21			
III BDS					
1	Oral Pathology	19-02-21			
2	General Surgery	15-02-21			
3	General Medicine	16-02-21			
IV BDS					
1	Oral Medicine	15-02-21			
2	Orthodontics	16-02-21			
3	Pedodontics	17-02-21			
4	Prosthodontics	18-02-21			
5	Conservative Dentistry	19-02-21			
6	Oral Surgery	22-02-21			
7	Periodontics	23-02-21			
8	Public Health Dentistry	24-02-21			
II BDS Practical					
1	Pre-clin Cons -Batch A Pre-clinl Prosthodontics - Batch B	15-02-21			
2	Pre-clin Cons -Batch A Pre-clinl Prosthodontics - Batch B	16-02-21			
III BDS Practical					
1	General Surgery	17-02-21			
2	General Medicine	18-02-21			

- Note:**
- Theory exams will be centralized & as per university pattern for 70 marks for 3 hour duration.
  - Theory / Practical will be off line and the department shall ensure the covid protocols are maintained. Subject In-charges shall be responsible for conducting the examinations and submission of marks to the office.
  - Practicals: All three internal assessments have to be conducted during the respective Practical / clinical hours except for pre-clinical prosthodontics and conservative.
  - Theory & clinical/practicals will remain suspended during the above mentioned timings.
  - Timings for I BDS to III BDS 9:00am to 12:00noon, IV BDS, 1:30pm to 4:30pm





Dayananda Sagar College of Dental Sciences  
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16/12/2020

Internal Assessment Theory Examination Time Table for  
2020 - 21 REGULAR BATCH

I BDS					
Sl. No.	Subject	I Internal	II Internal	III Internal	Signature
1	General Anatomy	15-01-21	15-03-21	15-04-21	
2	Physiology & Biochemistry	16-01-21	16-03-21	16-04-21	
3	Dental Anatomy	18-01-21	17-03-21	17-04-21	
II BDS					
1	Gen. Pathology & Microbiology	15-01-21	15-03-21	15-04-21	
2	Pharmacology	16-01-21	16-03-21	16-04-21	
3	Dental Materials	20-01-21	17-03-21	17-04-21	
III BDS					
1	Oral Pathology	15-01-21	15-03-21	15-04-21	
2	General Surgery	16-01-21	16-03-21	16-04-21	
3	General Medicine	18-01-21	19-03-21	17-04-21	
IV BDS					
1	Oral Medicine	15-01-21	15-03-21	15-04-21	
2	Orthodontics	16-01-21	16-03-21	16-04-21	
3	Pedodontics	18-01-21	17-03-21	19-04-21	
4	Prosthodontics	19-01-21	18-03-21	20-04-21	
5	Conservative Dentistry	20-01-21	19-03-21	21-04-21	
6	Oral Surgery	21-01-21	22-03-21	22-04-21	
7	Periodontics	22-01-21	23-03-21	23-04-21	
8	Public Health Dentistry	25-01-21	24-03-21	26-04-21	
II BDS Practical					
1	Pre-clin Cons -Batch A Pre-clinl Prosthodontics - Batch B	18-01-21	22-03-21	19-04-21	
2	Pre-clin Cons -Batch A Pre-clinl Prosthodontics - Batch B	19-01-21	23-03-21	20-04-21	
III BDS Practical					
1	General Surgery	20-01-21	17-03-21	21-04-21	
2	General Medicine	21-01-21	18-03-21	22-04-21	

- Note:**
1. Theory exams will be centralised & as per university pattern for 70 marks for 3 hour duration.
  2. Theory / Practical will be off line and the department shall ensure the covid protocols are maintained. Subject In-charges shall be responsible for conducting the examinations and submission of marks to the office.
  3. Practicals: All three internal assessments have to be conducted during the respective Practical / clinical hours except for pre-clinical prosthodontics and conservative.
  4. Theory & clinical/practicals will remain suspended during the above mentioned timings.
  5. Timings for I BDS to III BDS 9:00am to 12:00noon, IV BDS, 1:30pm to 4:30pm

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Dayananda Sagar College of Dental Sciences  
Shavige Malleshwara Hills, Kumaraswamy Layout, Bangalore - 78

14/12/2020

Internal Assessment Theory Examination Time Table for  
2020 - 21 ODD BATCH

I BDS					
Sl. No.	Subject	I Internal	II Internal	III Internal	Signature
1	General Anatomy		21-12-20	15-01-21	
2	Physiology & Biochemistry		22-12-20	16-01-21	
3	Dental Anatomy		23-12-20	18-01-21	
II BDS					
1	Gen. Pathology & Microbiology		21-12-20	15-01-21	
2	Pharmacology		22-12-20	16-01-21	
3	Dental Materials		23-12-20	20-01-21	
III BDS					
1	Oral Pathology		21-12-20	15-01-21	
2	General Surgery		22-12-20	16-01-21	
3	General Medicine		28-12-20	18-01-21	
IV BDS					
1	Oral Medicine		21-12-20	15-01-21	
2	Orthodontics		22-12-20	16-01-21	
3	Pedodontics		23-12-20	18-01-21	
4	Prosthodontics		24-12-20	19-01-21	
5	Conservative Dentistry		28-12-20	20-01-21	
6	Oral Surgery		29-12-20	21-01-21	
7	Periodontics		30-12-20	22-01-21	
8	Public Health Dentistry		31-12-20	25-01-21	
II BDS Practical					
1	Pre-clin Conservative		28-12-20	18-01-21	
2	Pre-clinl Prosthodontics		29-12-20	19-01-21	
III BDS Practical					
1	General Surgery		23-12-20	20-01-21	
2	General Medicine		24-12-20	21-01-21	

- Note:**
1. Theory exams will be centralized & as per university pattern for 70 marks for 3 hour duration.
  2. Theory / Practical will be off line and the department shall ensure the covid protocols are maintained. Subject In-charges shall be responsible for conducting the examinations and submission of marks to the office.
  3. Practicals: All three internal assessments have to be conducted during the respective Practical / clinical hours except for pre-clinical prosthodontics and conservative.
  4. Theory & clinical/practicals will remain suspended during the above mentioned timings.
  5. Timings for I BDS to III BDS 9:00am to 12:00noon, IV BDS, 1:30pm to 4:30pm

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Bangalore - 560 078.



Dayananda Sagar College of Dental Sciences,  
Shavige Malleshwara Hills, Kumaraswamy Layout, Bengaluru

August 25, 2020

DSCDS/OO/2020/24

**OFFICE ORDER**

**THIRD INTERNAL ASSESSMENT THEORY EXAMINATION FOR  
IV BDS REGULAR BATCH - SEPTEMBER 2020**

**TIMINGS - 1:30 to 4:30pm**

Sl. No.	Date	Day	Subject
1	01-09-2020	Tuesday	Oral Medicine & Radiology
2	02-09-2020	Wednesday	Pedodontics
3	03-09-2020	Thursday	Orthodontics
4	04-09-2020	Friday	Periodontics
5	05-09-2020	Saturday	Prosthodontics
6	06-09-2020 (9:30am to 12:30pm)	Sunday	Conservative Dentistry
7	07-09-2020	Monday	Oral Surgery
8	08-09-2020	Tuesday	Public Health Dentistry

**Note:** Examination will be conducted in the classes rooms maintaining social distancing norms and COVID protocols. Department shall depute invigilators for the respective subject examinations. Internal marks shall be submitted as per the schedule in the prescribed format.

  
**PRINCIPAL**

Copy to;

1. IV year BDS Whatsapp group Regular batch
2. Teaching Staff Whatsapp group
3. Office file

8/20/2020 10:10:10 AM  
Dayananda Sagar College of Dental Sciences  
BANGALURU  
BANGALURU 078



Dayananda Sagar College of Dental Sciences,  
Shavige Malleshwara Hills, Kumaraswamy Layout,  
Bengaluru- 560 078, Ph:080 26663654, Mobile: 7483693035  
Email: principal\_dscdsblr@rediffmail.com

First year to Final Year BDS First Internal Assessment time table  
2020-21 Odd batch

August 25, 2020

Timings : 10:00 am to 1:00 pm					
Sl	Subject	Date	Sl	Subject	Date
<b>Final BDS</b>					
1	Oral Medicine	14/09/2020	2	Public Health Dentistry	15/09/2020
3	Oral Surgery	16/09/2020	4	Conservative Dentistry	18/09/2020
5	Prosthodontics	19/09/2020	6	Pedodontics	21/09/2020
7	Periodontics	22/09/2020	8	Orthodontics	23/09/2020
<b>Third BDS</b>					
1	General Medicine	14/09/2020	2	General Surgery	15/09/2020
3	Oral Pathology	16/09/2020		-	
<b>Second BDS</b>					
1	Pathology & Microbiology	14/09/2020	2	Pharmacology	15/09/2020
3	Dental Materials	16/09/2020		-	
<b>First BDS</b>					
1	Anatomy	14/09/2020	2	Physiology & Biochemistry	15/09/2020
3	Dental Anatomy	16/09/2020		-	

**Instructions:**

1. Examination will be online for 3 hours
2. Question paper will be sent by the respective Staff / Incharge to the Under graduates to their whatsapp group **5 mins prior to the examination**
3. **Students shall write the answers neatly and legibly on A4 sheets of paper in black ball point pen**
4. **Papers shall be scanned using Cam Scanner and sent as a Pdf file only (the app can be downloaded by the play store)**
5. **Scan the paper properly ( crop out areas that are not required) and mail it to the respective department mail ids on the same day by 1:15 pm without fail**
6. Exam shall be written within the safe confines of your homes. Students are **advised to be sincere** while answering the questions and maintain the allotted time.
7. The exam will be conducted on Cisco webex platform and all students shall login at the specified time and keep their cameras on at all the times without fail.
8. Answers should be to the point, draw neat labelled diagrams where ever necessary using pencil.
9. Delay in sending in the scanned papers due to technical reasons shall be informed to the respective staff immediately and permission taken.

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Date: 06-02-2020

DSCDS/Office Order/2020/07

Internal Assessment Theory Examination Time Table for  
2020 - 21 ODD BATCH

Sl. No.	Subject	I Internal	II Internal	III Internal	Signature
<b>I BDS ( 1 pm - 4 pm)</b>					
1	General Anatomy	23-04-2020	04-08-2020	03-11-2020	[Signature]
2	Physiology & Biochemistry	24-04-2020	05-08-2020	04-11-2020	[Signature]
3	Dental Anatomy	27-04-2020	06-08-2020	05-10-2020	[Signature]
<b>II BDS ( 1 pm - 4 pm)</b>					
1	Gen. Pathology & Microbiology	23-04-2020	04-08-2020	03-11-2020	[Signature]
2	Pharmacology	24-04-2020	05-08-2020	04-11-2020	[Signature]
3	Dental Materials	27-04-2020	06-08-2020	05-11-2020	[Signature]
<b>III BDS ( 1 pm - 4 pm)</b>					
1	General Medicine	23-04-2020	04-08-2020	03-11-2020	[Signature]
2	General Surgery	24-04-2020	05-08-2020	04-11-2020	[Signature]
3	Oral Pathology	27-04-2020	06-08-2020	05-11-2020	[Signature]
<b>IV BDS ( 1 pm - 4 pm)</b>					
1	Oral Medicine	23-04-2020	04-08-2020	03-11-2020	[Signature]
2	Orthodontics	24-04-2020	05-08-2020	04-11-2020	[Signature]
3	Pedodontics	27-04-2020	06-08-2020	05-11-2020	[Signature]
4	Prosthodontics	28-04-2020	07-08-2020	06-11-2020	[Signature]
5	Conservative Dentistry	29-04-2020	10-08-2020	09-11-2020	[Signature]
6	Oral Surgery	30-04-2020	11-08-2020	10-11-2020	[Signature]
7	Periodontics	04-05-2020	12-08-2020	11-11-2020	[Signature]
8	Public Health Dentistry	05-05-2020	13-08-2020	12-11-2020	[Signature]
<b>II BDS Practical ( 9 am - 1 pm)</b>					
1	Pre-clin Cons -Batch A Pre-clinl Prosthodontics - Batch B	29-04-2020	12-08-2020	12-11-2020	[Signature]
2	Pre-clin Cons -Batch A Pre-clinl Prosthodontics - Batch B	30-04-2020	13-08-2020	13-11-2020	[Signature]
<b>III BDS Practical</b>					
1	General Surgery	29-04-2020	12-08-2020	11-11-2020	[Signature]
2	General Medicine	30-04-2020	13-08-2020	12-11-2020	[Signature]

Note:

1. Theory exams will be centralized & as per university pattern for 70 marks for 3 hour duration.
2. Practicals: All three internal assessments have to be conducted during the respective Practical / clinical hours except for pre-clinical prosthodontics and conservative.
3. Theory & clinical/practicals will remain suspended during the above mentioned timings.

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Kumaraswamy Layout,  
Bangalore - 560 078.



**Dayananda Sagar College of Dental Sciences,  
Shavige Malleshwara Hills, Kumaraswamy Layout,  
Bengaluru- 560 078, Ph:080 26663654, Mobile: 7483693035  
Email: principal\_dscdsblr@rediffmail.com**

Revised First year to Final Year BDS Third Internal Assessment time table  
2019-20 Regular batch

June 5, 2020

Timings : 10:00 am to 1:00 pm					
Sl	Subject	Date	Sl	Subject	Date
<b>Final BDS</b>					
1	Oral Medicine	22/06/2020	2	Public Health Dentistry	24/06/2020
3	Oral Surgery	26/06/2020	4	Conservative Dentistry	29/06/2020
5	Prosthodontics	01/07/2020	6	Pedodontics	03/07/2020
7	Periodontics	06/07/2020	8	Orthodontics	08/07/2020
<b>Third BDS</b>					
1	General Medicine	22/06/2020	2	General Surgery	24/06/2020
3	Oral Pathology	26/06/2020		-	
<b>Second BDS</b>					
1	Pathology & Microbiology	23/06/2020	2	Pharmacology	25/06/2020
3	Dental Materials	27/06/2020		-	
<b>First BDS</b>					
1	Anatomy	30/06/2020	2	Physiology & Biochemistry	02/07/2020
3	Dental Anatomy	04/07/2020		-	

**Instructions:**

1. Examination will be for 3 hours
2. Question paper will be sent by the respective Staff / Incharge to the Under graduates to their whatsapp group **5 mins prior to the examination**
3. **Students shall write the answers neatly and legibly on A4 sheets of paper in black ball point pen**
4. **Papers shall be scanned using Cam Scanner and sent as a Pdf file only (the app can be downloaded by the play store)**
5. **Scan the paper properly ( crop out areas that are not required) and mail it to the respective department mail ids on the same day by 1:15 pm without fail**
6. Exam shall be written within the safe confines of your homes. Students are **advised to be sincere** while answering the questions and maintain the allotted time.
7. The exam will be conducted on Cisco webex platform and all students shall login at the specified time and keep their cameras on at all the times without fail.
8. Answers should be to the point, draw neat labelled diagrams where ever necessary using pencil.
9. Delay in sending in the scanned papers due to technical reasons shall be informed to the respective staff immediately and permission taken.

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08-11-19

**Internal Assessment Theory Examination Time Table for  
2019 - 20 REGULAR BATCH**

I BDS ( 1 pm - 4 pm)					
Sl. No.	Subject	I Internal	II Internal	III Internal	Signature
1	General Anatomy	28-11-19	24-02-20	23-04-20	
2	Physiology & Biochemistry	29-11-19	25-02-20	24-04-20	<i>[Signature]</i>
3	Dental Anatomy	02-12-19	26-02-20	27-04-20	<i>[Signature]</i>
II BDS ( 1 pm - 4 pm)					
1	Gen. Pathology & Microbiology	28-11-19	24-02-20	23-04-20	<i>[Signature]</i>
2	Pharmacology	29-11-19	25-02-20	24-04-20	<i>[Signature]</i>
3	Dental Materials	02-12-19	26-02-20	27-04-20	<i>[Signature]</i>
III BDS ( 1 pm - 4 pm)					
1	Oral Pathology	28-11-19	24-02-20	23-04-20	<i>[Signature]</i>
2	General Surgery	29-11-19	25-02-20	24-04-20	
3	General Medicine	02-12-19	26-02-20	27-04-20	
IV BDS ( 1 pm - 4 pm)					
1	Oral Medicine	28-11-19	24-02-20	23-04-20	<i>[Signature]</i>
2	Orthodontics	29-11-19	25-02-20	24-04-20	<i>[Signature]</i>
3	Pedodontics	02-12-19	26-02-20	27-04-20	<i>[Signature]</i>
4	Prosthodontics	03-12-19	27-02-20	28-04-20	<i>[Signature]</i>
5	Conservative Dentistry	04-12-19	28-02-20	29-04-20	<i>[Signature]</i>
6	Oral Surgery	05-12-19	02-03-20	30-04-20	<i>[Signature]</i>
7	Periodontics	06-12-19	03-03-20	04-05-20	<i>[Signature]</i>
8	Public Health Dentistry	09-12-19	04-03-20	05-05-20	<i>[Signature]</i>
II BDS Practical ( 9 am - 1 pm)					
1	Pre-clin Cons -Batch A Pre-clinl Prostho- Batch B	06-12-19	28-02-20	04-05-20	<i>[Signature]</i>
2	Pre-clin Cons -Batch A Pre-clinl Prostho- Batch B	09-12-19	02-03-20	08-05-20	<i>[Signature]</i>
III BDS Practical					
1	General Surgery	04-12-19	04-03-20	06-05-20	
2	General Medicine	05-12-19	05-03-20	07-05-20	

- Note:**
- Theory exams will be centralized & as per university pattern for 70 marks for 3 hour duration.
  - Practicals: All three internal assessments have to be conducted during the respective Practical / clinical hours except for pre-cinical prostho and conservative.
  - Theory & clinical/practicals will remain suspended during the above mentioned timings.

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24/01/2019

**Internal Assessment Theory Examination Time Table for  
2019 - 20 ODD BATCH**

*DSCDS/2019/07*

I BDS					
Sl. No.	Subject	I Internal	II Internal	III Internal	Signature
1	General Anatomy	22-04-19	22-07-19	21-10-19	<i>[Signature]</i>
2	Physiology & Biochemistry	23-04-19	23-07-19	22-10-19	<i>[Signature]</i>
3	Dental Anatomy	24-04-19	25-07-19	23-10-19	<i>[Signature]</i>
II BDS					
1	Gen. Pathology & Microbiology	22-04-19	22-07-19	21-10-19	<i>[Signature]</i>
2	Pharmacology	23-04-19	23-07-19	22-10-19	<i>[Signature]</i>
3	Dental Materials	24-04-19	25-07-19	23-10-19	<i>[Signature]</i>
4	Pre Cli Conservative	25-04-19	26-07-19	24-10-19	<i>[Signature]</i>
5	Pre Cli Prosthodontics	26-04-19	29-07-19	25-10-19	<i>[Signature]</i>
III BDS					
1	General Medicine	25-04-19	25-07-19	23-10-19	<i>[Signature]</i>
2	General Surgery	26-04-19	26-07-19	24-10-19	<i>[Signature]</i>
3	Oral Pathology	29-04-19	29-07-19	25-10-19	<i>[Signature]</i>
IV BDS					
1	Oral Medicine	24-04-19	22-07-19	21-10-19	<i>[Signature]</i>
2	Orthodontics	25-04-19	23-07-19	22-10-19	<i>[Signature]</i>
3	Pedodontics	26-04-19	25-07-19	23-10-19	<i>[Signature]</i>
4	Prosthodontics	29-04-19	26-07-19	24-10-19	<i>[Signature]</i>
5	Conservative Dentistry	30-04-19	29-07-19	25-10-19	<i>[Signature]</i>
6	Oral Surgery	02-05-19	30-07-19	30-10-19	<i>[Signature]</i>
7	Periodontics	03-05-19	31-07-19	31-10-19	<i>[Signature]</i>
8	Public Health Dentistry	06-05-19	01-08-19	04-11-19	<i>[Signature]</i>
III BDS Practical					
1	General Medicine	<del>30-4-19</del>	<del>30-7-19</del>	4-11-19	
2	General Surgery	<del>8-5-19</del>	<del>31-7-19</del>	5-11-19	

Note: 1. Theory: a) Timings: 9:00am to 12:00noon - I BDS to III BDS, 1:30pm onwards for IV BDS.

b) Theory and Practicals will be suspended during the abovementioned timings only.

2. Practicals: all three internal assessments have to be conducted during the respective Practical / clinical hours.

*[Signature]*  
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28/09/2018

**Internal Assessment Theory Examination Time Table for**  
*DSCDS/2019/08* **2018 - 19 REGULAR BATCH**

I BDS					
Sl. No.	Subject	I Internal	II Internal	III Internal	Signature
1	General Anatomy	03-12-18	18-02-19	22-04-19	<i>[Signature]</i>
2	Physiology & Biochemistry	04-12-18	19-02-19	23-04-19	<i>[Signature]</i>
3	Dental Anatomy	05-12-18	20-02-19	24-04-19	<i>[Signature]</i>
II BDS					
1	Gen. Pathology & Microbiology	03-12-18	18-02-19	22-04-19	<i>[Signature]</i>
2	Pharmacology	04-12-18	19-02-19	23-04-19	<i>[Signature]</i>
3	Dental Materials	05-12-18	20-02-19	24-04-19	<i>[Signature]</i>
4	Pre Cli Conservative	06-12-18	21-02-19	25-04-19	<i>[Signature]</i>
5	Pre Cli Prosthodontics	07-12-18	22-02-19	26-04-19	<i>[Signature]</i>
III BDS					
1	General Medicine	06-12-18	21-02-19	25-04-19	<i>[Signature]</i>
2	General Surgery	07-12-18	22-02-19	26-04-19	<i>[Signature]</i>
3	Oral Pathology	08-12-18	25-02-19	29-04-19	<i>[Signature]</i>
IV BDS					
1	Oral Medicine	03-12-18	20-02-19	24-04-19	<i>[Signature]</i>
2	Orthodontics	04-12-18	21-02-19	25-04-19	<i>[Signature]</i>
3	Pedodontics	05-12-18	22-02-19	26-04-19	<i>[Signature]</i>
4	Prosthodontics	06-12-18	25-02-19	29-04-19	<i>[Signature]</i>
5	Conservative Dentistry	07-12-18	26-02-19	30-04-19	<i>[Signature]</i>
6	Oral Surgery	08-12-18	27-02-19	02-05-19	<i>[Signature]</i>
7	Periodontics	10-12-18	28-02-19	03-05-19	<i>[Signature]</i>
8	Public Health Dentistry	11-12-18	01-03-19	06-05-19	<i>[Signature]</i>
III BDS Practical					
1	General Medicine		26-2-2019	30-4-19	
2	General Surgery		27-2-2019	06-5-19	

Note: 1. Theory: a) Timings: 9:00am to 12:00noon - I BDS to III BDS, 1:30pm onwards for IV BDS.

b) Theory and Practicals will be suspended during the abovementioned timings only.

2. Practicals: all three internal assessments have to be conducted during the respective Practical / clinical hours.

*[Signature]*  
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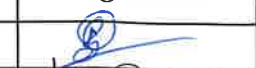

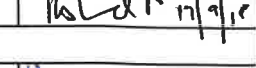

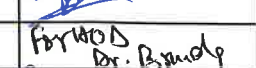
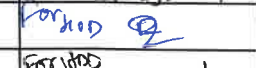
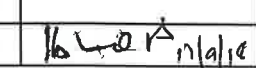
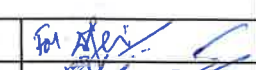

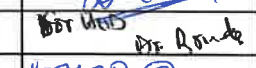

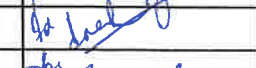

# Dayananda Sagar College of Dental Sciences

Shavige Malleshwara Hills, Kumaraswamy Layout,

Bangalore - 560 078

Date: 15/09/2018

## REVISED 2nd Internal Assessment Theory Examination Time Table for 2018-19 ODD BATCH

I BDS					
Sl. No.	Subject	I Internal	Revised II Internal	III Internal	Signature
1	General Anatomy	01-08-2018	09-10-2018	02-11-2018	
2	Physiology & Biochemistry	03-08-2018	10-10-2018	05-11-2018	 17/9/18
3	Dental Anatomy	06-08-2018	11-10-2018	07-11-2018	 17/9/18
II BDS					
1	Gen. Pathology & Microbiology	01-08-2018	09-10-2018	02-11-2018	
2	Pharmacology	03-08-2018	10-10-2018	05-11-2018	
3	Dental Materials	06-08-2018	11-10-2018	07-11-2018	For WOD Dr. Bandy
4	Pre Cli Conservative	09-08-2018	12-10-2018	09-11-2018	For WOD 
5	Pre Cli Prosthodontics	10-08-2018	13-10-2018	12-11-2018	For WOD Dr. Bandy
III BDS					
1	General Medicine	08-08-2018	09-10-2018	02-11-2018	
2	General Surgery	10-08-2018	11-10-2018	05-11-2018	
3	Oral Pathology	13-08-2018	10-10-2018	07-11-2018	 17/9/18
IV BDS					
1	Oral Medicine	08-08-2018	09-10-2018	02-11-2018	For WOD 
2	Orthodontics	10-08-2018	10-10-2018	05-11-2018	
3	Pedodontics	16-08-2018	11-10-2018	07-11-2018	
4	Prosthodontics	13-08-2018	12-10-2018	09-11-2018	For WOD Dr. Bandy
5	Conservative Dentistry	18-08-2018	13-10-2018	12-11-2018	For WOD 
6	Oral Surgery	20-08-2018	15-10-2018	14-11-2018	
7	Periodontics	23-08-2018	16-10-2018	16-11-2018	
8	Public Health Dentistry	28-08-2018	17-10-2018	19-11-2018	For WOD Sensasha
III BDS Practical					
1	General Medicine	20-08-2018			
2	General Surgery	22-08-2018			

Note: 1. Timings Monday to Friday - 2 pm onwards and on Saturday - 10 am onwards.

2. General Medicine & General Surgery exam timings - 9 am onwards.

3. Practical Exam should be conducted during their respective classes, except General Medicine &

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# Dayananda Sagar College of Dental Sciences

Shavige Malleshwara Hills, Kumaraswamy Layout,

Bangalore - 560 078

Date: 11/06/2018

## Internal Assessment Theory Examination Time Table for 2018-19 ODD BATCH

I BDS					
Sl. No.	Subject	I Internal	II Internal	III Internal	Signature
1	General Anatomy	01-08-2018	18-09-2018	02-11-2018	
2	Physiology & Biochemistry	03-08-2018	21-09-2018	05-11-2018	
3	Dental Anatomy	06-08-2018	24-09-2018	07-11-2018	
II BDS					
1	Gen. Pathology & Microbiology	01-08-2018	18-09-2018	02-11-2018	
2	Pharmacology	03-08-2018	21-09-2018	05-11-2018	
3	Dental Materials	06-08-2018	24-09-2018	07-11-2018	
4	Pre Cli Conservative	09-08-2018	26-09-2018	09-11-2018	
5	Pre Cli Prosthodontics	10-08-2018	28-09-2018	12-11-2018	
III BDS					
1	General Medicine	08-08-2018	18-09-2018	02-11-2018	
2	General Surgery	10-08-2018	21-09-2018	05-11-2018	
3	Oral Pathology	13-08-2018	24-09-2018	07-11-2018	
IV BDS					
1	Oral Medicine	08-08-2018	18-09-2018	02-11-2018	
2	Orthodontics	10-08-2018	21-09-2018	05-11-2018	
3	Pedodontics	13-08-2018	24-09-2018	07-11-2018	
4	Prosthodontics	16-08-2018	26-09-2018	09-11-2018	
5	Conservative Dentistry	18-08-2018	28-09-2018	12-11-2018	
6	Oral Surgery	20-08-2018	01-10-2018	14-11-2018	
7	Periodontics	23-08-2018	03-10-2018	16-11-2018	
8	Public Health Dentistry	28-08-2018	05-10-2018	19-11-2018	
III BDS Practical					
1	General Medicine	20-08-2018	26-09-18	21-11-2018	
2	General Surgery	22-08-2018	25-09-18	22-11-2018	

Note: 1. Timings Monday to Friday - 2 pm onwards and on Saturday - 10 am onwards.

2. General Medicine & General Surgery exam timings - 9 am onwards.



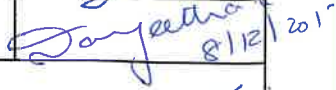



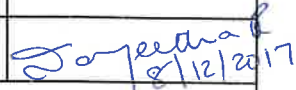
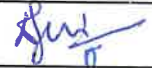



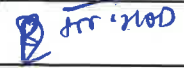



3. Practical Exam should be conducted during their respective classes, except General Medicine &

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28/11/2017

**Internal Assessment Theory Examination Time Table for  
2017 - 18 REGULAR BATCH**


I BDS					
Sl. No.	Subject	I Internal	II Internal	III Internal	Signature
1	General Anatomy	8/1/2018	12/3/2018	7/5/2018	
2	Physiology & Biochemistry	9/1/2018	13/3/2018	8/5/2018	
3	Dental Anatomy	10/1/2018	14/3/2018	9/5/2018	 8/12/2017
II BDS					
1	Gen. Pathology & Microbiology	8/1/2018	12/3/2018	7/5/2018	
2	Pharmacology	9/1/2018	13/3/2018	8/5/2018	
3	Dental Materials	10/1/2018	14/3/2018	9/5/2018	 for mod
III BDS					
1	General Medicine	16/1/2018	15/3/2018	10/5/2018	
2	General Surgery	17/1/2018	16/3/2018	11/5/2018	
3	Oral Pathology	18/1/2018	17/3/2018	14/5/2018	 8/12/2017
IV BDS					
1	Oral Medicine	16/1/2018	15/3/2018	10/5/2018	
2	Orthodontics	17/1/2018	16/3/2018	11/5/2018	
3	Pedodontics	18/1/2018	17/3/2018	14/5/2018	
4	Prosthodontics	19/1/2018	19/3/2018	15/5/2018	 for mod
5	Conservative Dentistry	22/1/2018	20/3/2018	16/5/2018	 for mod
6	Oral Surgery	23/1/2018	21/3/2018	17/5/2018	
7	Periodontics	24/1/2018	22/3/2018	18/5/2018	
8	Public Health Dentistry	25/1/2018	23/3/2018	19/5/2018	 for Semester
III BDS Practical					
1	General Medicine	18/01/2018	20/03/2018	15/05/2018	
2	General Surgery	22/01/2018	19/03/2018	16/05/2018	

Note: 1. Timings Monday to Friday - 2 pm onwards and on Saturday - 11 am onwards.

2. General Medicine & General Surgery exam timings - 9 am onwards.

3. Practical Exam should be conducted during their respective classes.

Draft for Approval to Principal

  
28/11/17



  
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**Dayananda Sagar College of Dental Sciences,  
Shavige Malleshwara Hills, Kumaraswamy Layout, Bengaluru**

January 2, 2018

DSCDS/2018

**OFFICE ORDER**

**Ref: Internal Assessment Theory Examination Time Table dated: 28/11/2017**

**FIRST INTERNAL ASSESSMENT THEORY EXAMINATION FOR 2017-18 REGULAR BATCH**

Sl. No.	Date	Day	Subject
<b>I BDS</b>			
1	08-01-2018	Monday	General Anatomy
2	09-01-2018	Tuesday	Physiology & Biochemistry
3	10-01-2018	Wednesday	Dental Anatomy
<b>II BDS</b>			
1	08-01-2018	Monday	General Pathology & Microbiology
2	09-01-2018	Tuesday	Pharmacology
3	10-01-2018	Wednesday	Dental Materials
<b>III BDS</b>			
1	16-01-2018	Tuesday	General Medicine
2	17-01-2018	Wednesday	General Surgery
3	18-01-2018	Thursday	Oral Pathology
<b>Practical</b>			
1	18-01-2018	Thursday	General Medicine
2	22/1/2018	Monday	General Surgery
<b>IV BDS</b>			
1	16/1/2018	Tuesday	Oral Medicine
2	17/1/2018	Wednesday	Orthodontics
3	18/1/2018	Thursday	Pedodontics
4	19/1/2018	Friday	Prosthodontics
5	22/1/2018	Monday	Conservative Dentistry
6	23/1/2018	Tuesday	Oral Surgery
7	24/1/2018	Wednesday	Periodontics
8	25/1/2018	Thursday	Public Health Dentistry

**Note:**

1. Timings– 2:00pm onwards (Mon to Friday) 11.00am onwards (Saturday)
2. General Medicine & General Surgery exam timings 9am onwards.
3. Practical exam should be conducted during respective classes.

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Dayananda Sagar College of Dental Sciences,  
Shavige Malleshwara Hills, Kumaraswamy Layout, Bengaluru

March 5, 2018

DSCDS/2018

**OFFICE ORDER**

**Ref: Internal Assessment Theory Examination Time Table dated: 28/11/2017**

**SECOND INTERNAL ASSESSMENT THEORY EXAMINATION FOR 2017-18 REGULAR BATCH**

Sl. No.	Date	Day	Subject
I BDS			
1	12-03-2018	Monday	General Anatomy
2	13-03-2018	Tuesday	Physiology & Biochemistry
3	14-03-2018	Wednesday	Dental Anatomy
II BDS			
1	12-03-2018	Monday	General Pathology & Microbiology
2	13-03-2018	Tuesday	Pharmacology
3	14-03-2018	Wednesday	Dental Materials
III BDS			
1	15-03-2018	Thursday	General Medicine
2	16-03-2018	Friday	General Surgery
3	17-03-2018	Saturday	Oral Pathology
Practical			
1	20-03-2018	Tuesday	General Medicine
2	19-03-2018	Monday	General Surgery
IV BDS			
1	15-03-2018	Thursday	Oral Medicine
2	16-03-2018	Friday	Orthodontics
3	17-03-2018	Saturday	Pedodontics
4	19-03-2018	Monday	Prosthodontics
5	20-03-2018	Tuesday	Conservative Dentistry
6	21-03-2018	Wednesday	Oral Surgery
7	22-03-2018	Thursday	Periodontics
8	23-03-2018	Friday	Public Health Dentistry

**Note:**

1. Timings– 2:00pm onwards (Mon to Friday) 11.00am onwards (Saturday)
2. General Medicine & General Surgery exam timings 9am onwards.
3. Practical exam should be conducted during respective classes.

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**Dayananda Sagar College of Dental Sciences,  
Shavige Malleshwara Hills, Kumaraswamy Layout, Bengaluru**

May 2, 2018

DSCDS/2018

**OFFICE ORDER**

**Ref: Internal Assessment Theory Examination Time Table dated: 28/11/2017**

**THIRD INTERNAL ASSESSMENT THEORY EXAMINATION FOR 2017-18 REGULAR BATCH**

Sl. No.	Date	Day	Subject
I BDS			
1	07-05-2018	Monday	General Anatomy
2	08-05-2018	Tuesday	Physiology & Biochemistry
3	09-05-2018	Wednesday	Dental Anatomy
II BDS			
1	07-05-2018	Monday	General Pathology & Microbiology
2	08-05-2018	Tuesday	Pharmacology
3	09-05-2018	Wednesday	Dental Materials
III BDS			
1	10-05-2018	Thursday	General Medicine
2	11-05-2018	Friday	General Surgery
3	14-05-2018	Monday	Oral Pathology
Practical			
1	15-05-2018	Tuesday	General Medicine
2	16-05-2018	Wednesday	General Surgery
IV BDS			
1	10-05-2018	Thursday	Oral Medicine
2	11-05-2018	Friday	Orthodontics
3	14-05-2018	Monday	Pedodontics
4	15-05-2018	Tuesday	Prosthodontics
5	16-05-2018	Wednesday	Conservative Dentistry
6	17-05-2018	Thursday	Oral Surgery
7	18-05-2018	Friday	Periodontics
8	19-05-2018	Saturday	Public Health Dentistry

**Note:**

1. Timings– 2:00pm onwards (Mon to Friday) 11.00am onwards (Saturday)
2. General Medicine & General Surgery exam timings 9am onwards.
3. Practical exam should be conducted during respective classes.

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**Dayananda Sagar College of Dental Sciences,  
Shavige Malleshwara Hills, Kumaraswamy Layout, Bengaluru**

July 25, 2018

DSCDS/2018

**OFFICE ORDER**

Ref: Internal Assessment Theory Examination Time Table dated: 11/06/2018

**FIRST INTERNAL ASSESSMENT THEORY EXAMINATION FOR 2018-19 ODD BATCH**

Sl. No.	Date	Day	Subject
<b>I BDS</b>			
1	01-08-2018	Wednesday	General Anatomy
2	03-08-2018	Friday	Physiology & Biochemistry
3	06-08-2018	Monday	Dental Anatomy
<b>II BDS</b>			
1	01-08-2018	Wednesday	General Pathology & Microbiology
2	03-08-2018	Friday	Pharmacology
3	06-08-2018	Monday	Dental Materials
4	09-08-2018	Thursday	Pre Clinical Conservative
5	10-08-2018	Friday	Pre Clinical Prosthodontics
<b>III BDS</b>			
1	08-08-2018	Wednesday	General Medicine
2	10-08-2018	Friday	General Surgery
3	13-08-2018	Monday	Oral Pathology
<b>Practical</b>			
1	20-08-2018	Monday	General Medicine
2	22-08-2018	Wednesday	General Surgery
<b>IV BDS</b>			
1	08-08-2018	Wednesday	Oral Medicine
2	10-08-2018	Friday	Orthodontics
3	13-08-2018	Monday	Pedodontics
4	16-08-2018	Thursday	Prosthodontics
5	18-08-2018	Saturday	Conservative Dentistry
6	20-08-2018	Monday	Oral Surgery
7	23-08-2018	Thursday	Periodontics
8	28-08-2018	Tuesday	Public Health Dentistry

**Note:**

1. Timings-- 2:00pm onwards (Mon to Friday) 10.00am onwards (Saturday)
2. General Medicine & General Surgery exam timings 9am onwards.
3. Practical exam should be conducted during respective classes.

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Dayananda Sagar College of Dental Sciences,  
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October 3, 2018

DSCDS/2018/

**OFFICE ORDER**

Ref: Internal Assessment Theory Examination Time Table dated: 15/09/2018

**SECOND INTERNAL ASSESSMENT THEORY EXAMINATION FOR 2018-19 ODD BATCH**

Sl. No.	Date	Day	Subject
<b>I BDS</b>			
1	09-10-2018	Tuesday	General Anatomy
2	10-10-2018	Wednesday	Physiology & Biochemistry
3	11-10-2018	Thursday	Dental Anatomy
<b>II BDS</b>			
1	09-10-2018	Tuesday	General Pathology & Microbiology
2	10-10-2018	Wednesday	Pharmacology
3	11-10-2018	Thursday	Dental Materials
4	12-10-2018	Friday	Pre Clinical Conservative
5	13-10-2018	Saturday	Pre Clinical Prosthodontics
<b>III BDS</b>			
1	09-10-2018	Tuesday	General Medicine
2	10-10-2018	Wednesday	General Surgery
3	11-10-2018	Thursday	Oral Pathology
<b>IV BDS</b>			
1	09-10-2018	Tuesday	Oral Medicine
2	10-10-2018	Wednesday	Orthodontics
3	11-10-2018	Thursday	Pedodontics
4	12-10-2018	Friday	Prosthodontics
5	13-10-2018	Saturday	Conservative Dentistry
6	15-10-2018	Monday	Oral Surgery
7	16-10-2018	Tuesday	Periodontics
8	17-10-2018	Wednesday	Public Health Dentistry

**Note:**

1. Timings-- 2:00pm onwards (Mon to Friday) 10.00am onwards (Saturday)
2. General Medicine & General Surgery exam timings 9am onwards.
3. Practical exam should be conducted during respective classes.

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**Dayananda Sagar College of Dental Sciences,  
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October 29, 2018

DSCDS/2018/

**OFFICE ORDER**

**Ref: Internal Assessment Theory Examination Time Table dated: 15/09/2018**

**THIRD INTERNAL ASSESSMENT THEORY EXAMINATION FOR 2018-19 ODD BATCH**

Sl. No.	Date	Day	Subject
<b>I BDS</b>			
1	02-11-2018	Friday	General Anatomy
2	05-11-2018	Monday	Physiology & Biochemistry
3	07-11-2018	Wednesday	Dental Anatomy
<b>II BDS</b>			
1	02-11-2018	Friday	General Pathology & Microbiology
2	05-11-2018	Monday	Pharmacology
3	07-11-2018	Wednesday	Dental Materials
4	09-11-2018	Friday	Pre Clinical Conservative
5	12-11-2018	Monday	Pre Clinical Prosthodontics
<b>III BDS</b>			
1	02-11-2018	Friday	General Medicine
2	05-11-2018	Monday	General Surgery
3	07-11-2018	Wednesday	Oral Pathology
<b>IV BDS</b>			
1	02-11-2018	Friday	Oral Medicine
2	05-11-2018	Monday	Orthodontics
3	07-11-2018	Wednesday	Pedodontics
4	09-11-2018	Friday	Prosthodontics
5	12-11-2018	Monday	Conservative Dentistry
6	14-11-2018	Wednesday	Oral Surgery
7	16-11-2018	Friday	Periodontics
8	19-11-2018	Monday	Public Health Dentistry

**Note:**

1. Timings– 2:00pm onwards (Mon to Friday) 10.00am onwards (Saturday)
2. General Medicine & General Surgery exam timings 9am onwards.
3. Practical exam should be conducted during respective classes.

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November 26, 2018

DSCDS/2018

**OFFICE ORDER**

**Ref: Internal Assessment Theory Examination Time Table dated: 28/09/2018**

**FIRST INTERNAL ASSESSMENT THEORY EXAMINATION FOR 2018-19 REGULAR BATCH**

Sl. No.	Date	Day	Subject
<b>I BDS</b>			
1	03-12-2018	Monday	General Anatomy
2	04-12-2018	Tuesday	Physiology & Biochemistry
3	05-12-2018	Wednesday	Dental Anatomy
<b>II BDS</b>			
1	03-12-2018	Monday	General Pathology & Microbiology
2	04-12-2018	Tuesday	Pharmacology
3	05-12-2018	Wednesday	Dental Materials
4	06-12-2018	Thursday	Pre Clinical Conservative
5	07-12-2018	Friday	Pre Clinical Prosthodontics
<b>III BDS</b>			
1	03-12-2018	Monday	General Medicine
2	04-12-2018	Tuesday	General Surgery
3	05-12-2018	Wednesday	Oral Pathology
<b>IV BDS</b>			
1	03-12-2018	Monday	Oral Medicine
2	04-12-2018	Tuesday	Orthodontics
3	05-12-2018	Wednesday	Pedodontics
4	06-12-2018	Thursday	Prosthodontics
5	07-12-2018	Friday	Conservative Dentistry
6	08-12-2018	Saturday	Oral Surgery
7	10-12-2018	Monday	Periodontics
8	11-12-2018	Tuesday	Public Health Dentistry

**Note:**

1. Timings– 9:00am to 12:00noon – I to III BDS, 1:30pm to 4.30pm-IV BDS
2. Practical exam should be conducted during respective classes.

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November 26, 2018

DSCDS/2018/

**OFFICE ORDER**

**Ref: Internal Assessment Theory Examination Time Table dated: 24/01/2019**

**FIRST INTERNAL ASSESSMENT THEORY EXAMINATION FOR 2019-20 ODDBATCH**

Sl. No.	Date	Day	Subject
<b>I BDS</b>			
1	22-04-2019	Monday	General Anatomy
2	23-04-2019	Tuesday	Physiology & Biochemistry
3	24-04-2019	Wednesday	Dental Anatomy
<b>II BDS</b>			
1	22-04-2019	Monday	General Pathology & Microbiology
2	23-04-2019	Tuesday	Pharmacology
3	24-04-2019	Wednesday	Dental Materials
4	25-04-2019	Thursday	Pre Clinical Conservative
5	26-04-2019	Friday	Pre Clinical Prosthodontics
<b>III BDS</b>			
1	25-04-2019	Thursday	General Medicine
2	26-04-2019	Friday	General Surgery
3	29-04-2019	Monday	Oral Pathology
<b>Practical</b>			
1	30-04-2019	Tuesday	General Medicine
2	08-05-2019	Wednesday	General Surgery
<b>IV BDS</b>			
1	24-04-2019	Wednesday	Oral Medicine
2	25-04-2019	Thursday	Orthodontics
3	26-04-2019	Friday	Pedodontics
4	29-04-2019	Monday	Prosthodontics
5	30-04-2019	Tuesday	Conservative Dentistry
6	02-05-2019	Thursday	Oral Surgery
7	03-05-2019	Friday	Periodontics
8	06-05-2019	Monday	Public Health Dentistry

**Note:**

1. Timings- 9:00am to 12:00noon – I to III BDS, 1:30pm to 4.30pm-IV BDS
2. Practical exam should be conducted during respective classes.

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**Dayananda Sagar College of Dental Sciences,  
Shavige Malleshwara Hills, Kumaraswamy Layout, Bengaluru**

February 11, 2019

DSCDS/2019/

**OFFICE ORDER**

**Ref: Internal Assessment Theory Examination Time Table dated: 28/09/2018**

**SECOND INTERNAL ASSESSMENT THEORY EXAMINATION FOR 2018-19 REGULAR BATCH**

Sl. No.	Date	Day	Subject
<b>I BDS</b>			
1	18-02-2019	Monday	General Anatomy
2	19-02-2019	Tuesday	Physiology & Biochemistry
3	20-02-2019	Wednesday	Dental Anatomy
<b>II BDS</b>			
1	18-02-2019	Monday	General Pathology & Microbiology
2	19-02-2019	Tuesday	Pharmacology
3	20-02-2019	Wednesday	Dental Materials
4	21-02-2019	Thursday	Pre Clinical Conservative
5	22-02-2019	Friday	Pre Clinical Prosthodontics
<b>III BDS</b>			
1	18-02-2019	Monday	General Medicine
2	19-02-2019	Tuesday	General Surgery
3	20-02-2019	Wednesday	Oral Pathology
<b>Practical</b>			
1	26-02-2019	Tuesday	General Medicine
2	27-02-2019	Wednesday	General Surgery
<b>IV BDS</b>			
1	20-02-2019	Wednesday	Oral Medicine
2	21-02-2019	Thursday	Orthodontics
3	22-02-2019	Friday	Pedodontics
4	25-02-2019	Monday	Prosthodontics
5	26-02-2019	Tuesday	Conservative Dentistry
6	27-02-2019	Wednesday	Oral Surgery
7	28-02-2019	Thursday	Periodontics
8	01-03-2019	Friday	Public Health Dentistry

**Note:**

1. Timings-- 9:00am to 12:00noon – I to III BDS, 1:30pm to 4.30pm-IV BDS
2. Practical exam should be conducted during respective classes.

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April 15, 2019

DSCDS/2019/

**OFFICE ORDER**

**Ref: Internal Assessment Theory Examination Time Table dated: 28/09/2018**

**THIRD INTERNAL ASSESSMENT THEORY EXAMINATION FOR 2018-19 REGULAR BATCH**

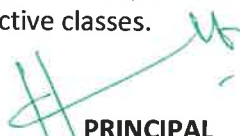
Sl. No.	Date	Day	Subject
<b>I BDS</b>			
1	22-04-2019	Monday	General Anatomy
2	23-04-2019	Tuesday	Physiology & Biochemistry
3	24-04-2019	Wednesday	Dental Anatomy
<b>II BDS</b>			
1	22-04-2019	Monday	General Pathology & Microbiology
2	23-04-2019	Tuesday	Pharmacology
3	24-04-2019	Wednesday	Dental Materials
4	25-04-2019	Thursday	Pre Clinical Conservative
5	26-04-2019	Friday	Pre Clinical Prosthodontics
<b>III BDS</b>			
1	25-04-2019	Thursday	General Medicine
2	26-04-2019	Friday	General Surgery
3	29-04-2019	Monday	Oral Pathology
<b>Practical</b>			
1	30-04-2019	Tuesday	General Medicine
2	06-05-2019	Monday	General Surgery
<b>IV BDS</b>			
1	24-04-2019	Wednesday	Oral Medicine
2	25-04-2019	Thursday	Orthodontics
3	26-04-2019	Friday	Pedodontics
4	29-04-2019	Monday	Prosthodontics
5	30-04-2019	Tuesday	Conservative Dentistry
6	02-05-2019	Thursday	Oral Surgery
7	03-05-2019	Friday	Periodontics
8	06-05-2019	Monday	Public Health Dentistry

**Note:**

1. Timings– 9:00am to 12:00noon – I to III BDS, 1:30pm to 4.30pm-IV BDS
2. Practical exam should be conducted during respective classes.

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Dayananda Sagar College of Dental Sciences,  
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July 15, 2019

DSCDS/2019/

**OFFICE ORDER**  
**SECOND INTERNAL ASSESSMENT THEORY EXAMINATION FOR 2019-20 ODD BATCH**

Sl. No.	Date	Day	Subject
<b>I BDS</b>			
1	01-08-2019	Thursday	General Anatomy
2	02-08-2019	Friday	Physiology & Biochemistry
3	05-08-2019	Monday	Dental Anatomy
<b>II BDS</b>			
1	01-08-2019	Thursday	General Pathology & Microbiology
2	02-08-2019	Friday	Pharmacology
3	05-08-2019	Monday	Dental Materials
4	06-08-2019	Tuesday	Pre Clinical Conservative
5	07-08-2019	Wednesday	Pre Clinical Prosthodontics
<b>III BDS</b>			
1	01-08-2019	Thursday	Oral Pathology
2	02-08-2019	Friday	General Surgery
3	05-08-2019	Monday	General Medicine
<b>IV BDS</b>			
1	01-08-2019	Thursday	Oral Medicine
2	02-08-2019	Friday	Orthodontics
3	05-08-2019	Monday	Pedodontics
4	06-08-2019	Tuesday	Prosthodontics
5	07-08-2019	Wednesday	Conservative Dentistry
6	08-08-2019	Thursday	Oral Surgery
7	09-08-2019	Friday	Periodontics
8	12-08-2019	Monday	Public Health Dentistry

**Note:**

1. Timings– 9:00am to 12:00noon – I to III BDS, 1:30pm to 4.30pm-IV BDS
2. Practical exam should be conducted during respective classes.

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October 14, 2019

DSCDS/2019/

**OFFICE ORDER  
THIRD INTERNAL ASSESSMENT THEORY EXAMINATION FOR 2019-20 ODD BATCH**

Sl. No.	Date	Day	Subject
<b>I BDS</b>			
1	21-10-2019	Monday	General Anatomy
2	22-10-2019	Tuesday	Physiology & Biochemistry
3	23-10-2019	Wednesday	Dental Anatomy
<b>II BDS</b>			
1	21-10-2019	Monday	General Pathology & Microbiology
2	22-10-2019	Tuesday	Pharmacology
3	23-10-2019	Wednesday	Dental Materials
4	24-10-2019	Thursday	Pre Clinical Conservative
5	25-10-2019	Friday	Pre Clinical Prosthodontics
<b>III BDS</b>			
1	23-10-2019	Wednesday	Oral Pathology
2	24-10-2019	Thursday	General Surgery
3	25-10-2019	Friday	General Medicine
<b>Practical</b>			
1	04-11-2019	Monday	General Medicine
2	05-11-2019	Tuesday	General Surgery
<b>IV BDS</b>			
1	21-10-2019	Monday	Oral Medicine
2	22-10-2019	Tuesday	Orthodontics
3	23-10-2019	Wednesday	Pedodontics
4	24-10-2019	Thursday	Prosthodontics
5	25-10-2019	Friday	Conservative Dentistry
6	30-10-2019	Wednesday	Oral Surgery
7	31-10-2019	Thursday	Periodontics
8	04-11-2019	Monday	Public Health Dentistry

**Note:**

1. Timings– 9:00am to 12:00noon – I to III BDS, 1:30pm to 4.30pm-IV BDS
2. Practical exam should be conducted during respective classes.

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November 21, 2019

DSCDS/2019

**OFFICE ORDER**

**Ref: Internal Assessment Theory Examination Time Table dated: 08/11/2019**

**FIRST INTERNAL ASSESSMENT THEORY EXAMINATION FOR 2019-20 REG BATCH**

Sl. No.	Date	Day	Subject
<b>I BDS</b>			
1	28-11-2019	Thursday	General Anatomy
2	29-11-2019	Friday	Physiology & Biochemistry
3	02-12-2019	Monday	Dental Anatomy
<b>II BDS</b>			
1	28-11-2019	Thursday	General Pathology & Microbiology
2	29-11-2019	Friday	Pharmacology
3	02-12-2019	Monday	Dental Materials
4	06-12-2019	Friday	Pre Clinical Conservative – Batch A Pre Clinical Prosthodontics – Batch B
5	09-12-2019	Monday	Pre Clinical Conservative – Batch B Pre Clinical Prosthodontics – Batch A
<b>III BDS</b>			
1	28-11-2019	Thursday	Oral Pathology
2	29-11-2019	Friday	General Surgery
3	02-12-2019	Monday	General Medicine
<b>Practical</b>			
1	04-12-2019	Wednesday	General Surgery
2	05-12-2019	Thursday	General Medicine
<b>IV BDS</b>			
1	28-11-2019	Thursday	Oral Medicine
2	29-11-2019	Friday	Orthodontics
3	02-12-2019	Monday	Pedodontics
4	03-12-2019	Tuesday	Prosthodontics
5	04-12-2019	Wednesday	Conservative Dentistry
6	05-12-2019	Thursday	Oral Surgery
7	06-12-2019	Friday	Periodontics
8	09-12-2019	Monday	Public Health Dentistry

**Note:**

1. Timings– 1:00pm to 4.00pm – Theory: 9:00am to 1:00pm Practical Exams
2. Practical exam should be conducted during respective classes.

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**Dayananda Sagar College of Dental Sciences,  
Shavige Malleshwara Hills, Kumaraswamy Layout, Bengaluru**

February 17, 2020

DSCDS/2020/

**OFFICE ORDER**

**Ref: Internal Assessment Theory Examination Time Table dated: 08/11/2019**

**SECOND INTERNAL ASSESSMENT THEORY EXAMINATION FOR 2019-20 REG BATCH**

Sl. No.	Date	Day	Subject
<b>I BDS</b>			
1	24-02-2020	Monday	General Anatomy
2	25-02-2020	Tuesday	Physiology & Biochemistry
3	26-02-2020	Wednesday	Dental Anatomy
<b>II BDS</b>			
1	24-02-2020	Monday	General Pathology & Microbiology
2	25-02-2020	Tuesday	Pharmacology
3	26-02-2020	Wednesday	Dental Materials
4	28-02-2020	Friday	Pre Clinical Conservative – Batch A Pre Clinical Prosthodontics – Batch B
5	02-03-2020	Monday	Pre Clinical Conservative – Batch B Pre Clinical Prosthodontics – Batch A
<b>III BDS</b>			
1	24-02-2020	Monday	Oral Pathology
2	25-02-2020	Tuesday	General Surgery
3	26-02-2020	Wednesday	General Medicine
<b>Practical</b>			
1	04-03-2020	Wednesday	General Surgery
2	05-03-2020	Thursday	General Medicine
<b>IV BDS</b>			
1	24-02-2020	Monday	Oral Medicine
2	25-02-2020	Tuesday	Orthodontics
3	26-02-2020	Wednesday	Pedodontics
4	27-02-2020	Thursday	Prosthodontics
5	28-02-2020	Friday	Conservative Dentistry
6	02-03-2020	Monday	Oral Surgery
7	03-03-2020	Tuesday	Periodontics
8	04-03-2020	Wednesday	Public Health Dentistry

**Note:**

1. Timings– 9:00am to 12:00noon – I to III BDS, 1:30pm to 4.30pm-IV BDS
2. Practical exam should be conducted during respective classes.

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Dayananda Sagar College of Dental Sciences,  
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December 19, 2020

DSCDS/2020/

**OFFICE ORDER**

Ref: Internal Assessment Theory Examination Time Table dated: 14/12/2020

**SECOND INTERNAL ASSESSMENT THEORY EXAMINATION FOR 2020-21 ODD BATCH**

Sl. No.	Date	Day	Subject
<b>I BDS</b>			
1	21-12-2020	Monday	General Anatomy
2	22-12-2020	Tuesday	Physiology & Biochemistry
3	23-12-2020	Wednesday	Dental Anatomy
<b>II BDS</b>			
1	21-12-2020	Monday	General Pathology & Microbiology
2	22-12-2020	Tuesday	Pharmacology
3	23-12-2020	Wednesday	Dental Materials
4	28-12-2020	Monday	Pre Clinical Conservative
5	29-12-2020	Tuesday	Pre Clinical Prosthodontics
<b>III BDS</b>			
1	21-12-2020	Monday	Oral Pathology
2	22-12-2020	Tuesday	General Surgery
3	28-12-2020	Monday	General Medicine
<b>Practicals</b>			
1	23-12-2020	Wednesday	General Surgery
2	24-12-2020	Thursday	General Medicine
<b>IV BDS</b>			
1	21-12-2020	Monday	Oral Medicine
2	22-12-2020	Tuesday	Orthodontics
3	23-12-2020	Wednesday	Pedodontics
4	24-12-2020	Thursday	Prosthodontics
5	28-12-2020	Monday	Conservative Dentistry
6	29-12-2020	Tuesday	Oral Surgery
7	30-12-2020	Wednesday	Periodontics
8	31-12-2020	Thursday	Public Health Dentistry

**Note:**

1. Timings– I to III BDS 9:am to 12:00pm, IV BDS 1:30pm to 4:30pm
2. General Medicine & General Surgery exam timings 9am onwards.
3. Pre clinical conservative and Pre clinical prosthodontics exam timings 9am onwards

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February 13, 2021

DSCDS/00/2021/

**OFFICE ORDER**

**REF: Revised IA Time Table Dated:08/12/2021**

**THIRD INTERNAL ASSESSMENT THEORY EXAMINATION FOR  
IV BDS 2020-21 ODD BATCH –FEB 2021**

Sl. No.	Date	Day	Subject
<b>I BDS</b>			
1	15-02-2021	Monday	General Anatomy
2	16-02-2021	Tuesday	Physiology & Biochemistry
3	17-02-2021	Wednesday	Dental Anatomy
<b>II BDS</b>			
1	17-02-2021	Wednesday	General Pathology & Microbiology
2	18-02-2021	Thursday	Pharmacology
3	19-02-2021	Friday	Dental Materials
4	15-02-2021	Monday	Pre Clinical Conservative
5	16-02-2021	Tuesday	Pre Clinical Prosthodontics
<b>III BDS</b>			
1	19-02-2021	Friday	Oral Pathology
2	15-02-2021	Monday	General Surgery
3	16-02-2021	Tuesday	General Medicine
<b>Practicals</b>			
1	17-02-2021	Wednesday	General Surgery
2	18-02-2021	Thursday	General Medicine
<b>IV BDS</b>			
1	15-02-2021	Monday	Oral Medicine & Radiology
2	16-02-2021	Tuesday	Orthodontics
3	17-02-2021	Wednesday	Pedodontics
4	18-02-2021	Thursday	Prosthodontics
5	19-02-2021	Friday	Conservative Dentistry
6	22-02-2021	Monday	Oral Surgery
7	23-02-2021	Tuesday	Periodontics
8	24-02-2021	Wednesday	Public Health Dentistry

**Note:**

1. Timings– I to III BDS 9:am to 12:00pm, IV BDS 1:30pm to 4:30pm
2. General Medicine & General Surgery exam timings 9am onwards.
3. Pre clinical conservative and Pre clinical prosthodontics exam timings 9am onwards

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Dayananda Sagar College of Dental Sciences,  
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March 26, 2021

DSCDS/2021/

**OFFICE ORDER**

**Ref: Internal Assessment Theory Examination Time Table dated: 30/01/2021**

**FIRST INTERNAL ASSESSMENT THEORY EXAMINATION FOR 2020-21 REGULAR BATCH**

Sl. No.	Date	Day	Subject
<b>I BDS</b>			
1	02-04-2021	Friday	General Anatomy
2	06-04-2021	Tuesday	Physiology & Biochemistry
3	08-04-2021	Thursday	Dental Anatomy

**Note:**

1. Timings– I BDS 9.00:am to 12:00pm

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**Dayananda Sagar College of Dental Sciences,  
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May 28,2021

DSCDS/2021/

**OFFICE ORDER**

**Ref: Internal Assessment Theory Examination Time Table dated: 21-04-2021**

**SECOND INTERNAL ASSESSMENT THEORY EXAMINATION FOR 2020-21 REGULAR BATCH**


Sl. No.	Date	Day	Subject
<b>I BDS</b>			
1	01-06-2021	Tuesday	General Anatomy
2	02-06-2021	Wednesday	Physiology & Biochemistry
3	03-06-2021	Thursday	Dental Anatomy
<b>II BDS</b>			
1	25-05-2021	Tuesday	General Pathology & Microbiology
2	26-05-2021	Wednesday	Pharmacology
3	27-05-2021	Thursday	Dental Materials
4	31-05-2021	Monday	Pre Clinical Conservative – Batch A Pre Clinical Prosthodontics – Batch B
5	01-06-2021	Tuesday	Pre Clinical Conservative – Batch B Pre Clinical Prosthodontics – Batch A
<b>III BDS</b>			
1	25-05-2021	Tuesday	Oral Pathology
2	26-05-2021	Wednesday	General Surgery
3	27-05-2021	Thursday	General Medicine
<b>IV BDS</b>			
1	27-05-2021	Thursday	Oral Medicine
2	28-05-2021	Friday	Orthodontics
3	31-05-2021	Monday	Pedodontics
4	01-06-2021	Tuesday	Prosthodontics
5	02-06-2021	Wednesday	Conservative Dentistry
6	03-06-2021	Thursday	Oral Surgery
7	04-06-2021	Friday	Periodontics
8	07-06-2021	Monday	Public Health Dentistry

**Note:**

1. Timings– **II to III BDS 9:am to 12:00pm; I BDS & IV BDS 1:30pm to 4:30pm**
2. General Medicine & General Surgery exam timings 9am onwards.
3. Pre clinical conservative and Pre clinical prosthodontics exam timings 9am onwards

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**Dayananda Sagar College of Dental Sciences,  
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June 29, 2021

DSCDS/2021/

**OFFICE ORDER**

Ref: Internal Assessment Theory Examination Time Table dated: 21-04-2021

**THIRD INTERNAL ASSESSMENT THEORY EXAMINATION FOR 2020-21 REGULAR BATCH**

Sl. No.	Date	Day	Subject
<b>I BDS</b>			
1	06-07-2021	Tuesday	General Anatomy
2	07-07-2021	Wednesday	Physiology & Biochemistry
3	08-07-2021	Thursday	Dental Anatomy
<b>II BDS</b>			
1	01-07-2021	Thursday	General Pathology & Microbiology
2	02-07-2021	Friday	Pharmacology
3	03-07-2021	Saturday	Dental Materials
4	07-07-2021	Wednesday	Pre Clinical Conservative – Batch A Pre Clinical Prosthodontics – Batch B
5	08-07-2021	Thursday	Pre Clinical Conservative – Batch B Pre Clinical Prosthodontics – Batch A
<b>III BDS</b>			
1	01-07-2021	Thursday	Oral Pathology
2	02-07-2021	Friday	General Surgery
3	03-07-2021	Saturday	General Medicine
<b>Practicals</b>			
1	07-07-2021	Wednesday	General Surgery
2	08-07-2021	Thursday	General Medicine
<b>IV BDS</b>			
1	01-07-2021	Thursday	Oral Medicine
2	02-07-2021	Friday	Orthodontics
3	05-07-2021	Monday	Pedodontics
4	06-07-2021	Tuesday	Prosthodontics
5	07-07-2021	Wednesday	Conservative Dentistry
6	08-07-2021	Thursday	Oral Surgery
7	09-07-2021	Friday	Periodontics
8	12-07-2021	Monday	Public Health Dentistry

**Note:**

1. Timings– II to III BDS 9:am to 12:00pm, I BDS & IV BDS 1:30pm to 4:30pm
2. General Medicine & General Surgery exam timings 9am onwards.
3. Pre clinical conservative and Pre clinical prosthodontics exam timings 9am onwards

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**Dayananda Sagar College of Dental Sciences,  
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February 7, 2022

DSCDS/2022/

**OFFICE ORDER**

**Ref: Internal Assessment Theory Examination Time Table dated: 28-12-2021**

**THIRD INTERNAL ASSESSMENT THEORY EXAMINATION FOR 2021-22 ODD BATCH**


Sl. No.	Date	Day	Subject
<b>I BDS</b>			
1	14-02-2022	Monday	General Anatomy
2	15-02-2022	Tuesday	Physiology & Biochemistry
3	16-02-2022	Wednesday	Dental Anatomy
<b>II BDS</b>			
1	14-02-2022	Monday	General Pathology & Microbiology
2	15-02-2022	Tuesday	Pharmacology
3	16-02-2022	Wednesday	Dental Materials
4	21-01-2022	Monday	Pre Clinical Conservative – Batch A Pre Clinical Prosthodontics – Batch B
5	22-02-2022	Tuesday	Pre Clinical Conservative – Batch B Pre Clinical Prosthodontics – Batch A
<b>III BDS</b>			
1	14-02-2022	Monday	Oral Pathology
2	15-02-2022	Tuesday	General Surgery
3	16-02-2022	Wednesday	General Medicine
<b>Practical</b>			
1	23-02-2022	Wednesday	General Surgery
2	24-02-2022	Thursday	General Medicine
<b>IV BDS</b>			
1	14-02-2022	Monday	Oral Medicine
2	15-02-2022	Tuesday	Orthodontics
3	16-02-2022	Wednesday	Pedodontics
4	17-02-2022	Thursday	Prosthodontics
5	18-02-2022	Friday	Conservative Dentistry
6	21-01-2022	Monday	Oral Surgery
7	22-02-2022	Tuesday	Periodontics
8	23-02-2022	Wednesday	Public Health Dentistry

**Note:**

1. Timings– I BDS to IV BDS 1:30pm to 4:30pm
2. General Medicine & General Surgery exam timings 9am onwards.
3. Pre clinical conservative and Pre clinical prosthodontics exam timings 9am onwards

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**Dayananda Sagar College of Dental Sciences,  
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July 01, 2022

DSCDS/2022

**OFFICE ORDER**

**Ref: Internal Assessment Theory Examination Time Table dated: 20-06-2022**

**FINAL INTERNAL ASSESSMENT THEORY EXAMINATION FOR 2021-22 REGULAR BATCH**

Sl. No.	Date	Day	Subject
<b>II BDS</b>			
1	04-07-2022	Monday	General Pathology & Microbiology
2	05-07-2022	Tuesday	Pharmacology
3	11-07-2022	Monday	Dental Materials
4	04-07-2022	Monday	Pre Clinical Conservative – Batch A Pre Clinical Prosthodontics – Batch B
5	05-07-2022	Tuesday	Pre Clinical Conservative – Batch B Pre Clinical Prosthodontics – Batch A
<b>III BDS</b>			
1	04-07-2022	Monday	Oral Pathology
2	05-07-2022	Tuesday	General Surgery
3	11-07-2022	Monday	General Medicine
<b>Practicals</b>			
1	13-07-2022	Wednesday	General Surgery
2	14-07-2022	Thursday	General Medicine
<b>IV BDS</b>			
1	04-07-2022	Monday	Oral Medicine
2	05-07-2022	Tuesday	Orthodontics
3	06-07-2022	Wednesday	Pedodontics
4	07-07-2022	Thursday	Prosthodontics
5	08-07-2022	Friday	Conservative Dentistry
6	11-07-2022	Monday	Oral Surgery
7	12-07-2022	Tuesday	Periodontics
8	13-07-2022	Wednesday	Public Health Dentistry

**Note:**

1. Timings– II to III BDS 9:am to 12:00pm, IV BDS 1:30pm to 4:30pm
2. General Medicine & General Surgery exam timings 9am onwards.
3. Pre clinical conservative and Pre clinical prosthodontics exam timings 9am onwards

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Dayananda Sagar College of Dental Sciences,  
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July 01, 2022

DSCDS/2022

**OFFICE ORDER**

**Ref: Internal Assessment Theory Examination Time Table dated: 18-06-2022**

**FIRST INTERNAL ASSESSMENT THEORY EXAMINATION FOR 2021-22 REGULAR BATCH**

Sl. No.	Date	Day	Subject
<b>I BDS</b>			
1	04-07-2022	Monday	General Anatomy
2	05-07-2022	Tuesday	Physiology & Biochemistry
3	11-07-2022	Monday	Dental Anatomy

**Note:**

1. Timings– **1:30pm to 4:30pm**
2. General Medicine & General Surgery exam timings 9am onwards.
3. Pre clinical conservative and Pre clinical prosthodontics exam timings 9am onwards

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Dayananda Sagar College of Dental Sciences,  
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August 29, 2022

DSCDS/2022

**OFFICE ORDER**

Ref: Internal Assessment Theory Examination Time Table dated: 18-06-2022

**SECOND INTERNAL ASSESSMENT THEORY EXAMINATION FOR 2021-22 REGULAR BATCH**


Sl. No.	Date	Day	Subject
<b>I BDS</b>			
1	05-09-2022	Monday	General Anatomy
2	06-09-2022	Tuesday	Physiology & Biochemistry
3	07-09-2022	Wednesday	Dental Anatomy

**Note:**

1. Timings– **1:30pm to 4:30pm**
2. General Medicine & General Surgery exam timings 9am onwards.
3. Pre clinical conservative and Pre clinical prosthodontics exam timings 9am onwards

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Dayananda Sagar College of Dental Sciences,  
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October 27, 2022

DSCDS/2022

**OFFICE ORDER**

**Ref: Internal Assessment Theory Examination Time Table dated: 18-06-2022**

**THIRD INTERNAL ASSESSMENT THEORY EXAMINATION FOR 2021-22 REGULAR BATCH**

Sl. No.	Date	Day	Subject
<b>I BDS</b>			
1	02-11-2022	Tuesday	General Anatomy
2	03-11-2022	Wednesday	Physiology & Biochemistry
3	04-11-2022	Thursday	Dental Anatomy

**Note:**

1. Timings– **1:30pm to 4:30pm**
2. General Medicine & General Surgery exam timings 9am onwards.
3. Pre clinical conservative and Pre clinical prosthodontics exam timings 9am onwards

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Dayananda Sagar College of Dental Sciences, Bengaluru

Department of ANATOMY – I BDS

Time: 3 hours

Max Marks: 70

Date: 18.08.2021

**BDS III Internal Assessment Examination AUG 2021, 20-21 batch**

**Answer all questions and they should be specific. Draw neat labelled diagrams wherever necessary.**

**I. LONG ESSAY QUESTIONS**

**2x10=20**

- 1) Describe the lateral wall of nasal cavity under the following headings-  
a) bones b) cartilages c) mucous membrane d) nerve supply and blood supply.
- 2) Gross anatomy of cavernous sinus, its relations, tributaries. Add a note on its applied anatomy.

**II. SHORT ESSAY QUESTIONS**

**6x5=30**

- 3) Recurrent Laryngeal nerve.
- 4) Maxillary air sinus.
- 5) Histology of thick and thin skin.
- 6) Walder's ring.
- 7) Papillae.
- 8) Soft palate.

**III. SHORT ANSWER QUESTIONS**

**10x2=20**

- 9) Eurothelium or Transitional epithelium.
- 10) Remaglottis.
- 11) Hyoglosses muscle.
- 12) Sub mandibular salivatory ganglion.
- 13) Cervical sinus.
- 14) Thyrohyoid membrane.
- 15) Jugular space.
- 16) Vertebral artery.
- 17) Taste bud.
- 18) Implantation.


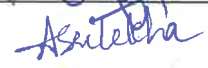










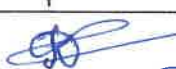

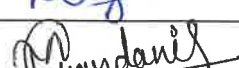

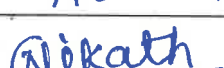


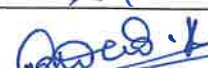


  
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# ANATOMY

**DAYANANDA SAGAR COLLEGE OF DENTAL SCIENCES**  
Shavige Malleswara Hills, Kumaraswamy Layout, Bangalore 560 078

**BDS 3rd IA Examination Aug 2021 - Regular Batch 2020-21**


**First BDS Student Seating List / Attendance**

Sl.No.	Reg. No.	Name of the Student	Signature
Room No:1			
1		Afra Ruknuddin	
2		Agile Sri Lekha	
3		Aishwarya Kulkarni	
4		Aisiri Raj H R	
5		Almas Banu	
6		Anjani Sravya M	
7		Bhavana B A	
8		Chirasree Chakraborty	
9		Dheeraj Narendra Shet	
10		Harshitha K	
11		Honey	
12		Inchara A	
13		Kaushik	
14		Meghana R Gaonkar	
15		Meghashree N Nandani	
16		Misbah Nadeem	
17		Mohammed Aabish	ABSENT
18		Nikath Fathima	
19		Nithya N	
20		Pooja	
21		Pradeep P Rathod	
22		Radhika M Poojar	
23		Rithi M	

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Sl.No.	Reg. No.	Name of the Student	Signature
24		S Bhuvana Shree	<i>S Bhuvana Shree</i>
25		Saba Fathima Khan	<i>Saba Khan</i>
26		Sanjana N	<i>Sanjana</i>
27		Spoorti M Shivalli	<i>Spoorti</i>
28		Taseen Akbar Khan	<i>Taseen</i>
29		Thejas Shekar B C	<i>Thejas</i>
30		Vipul M Naik	<i>V Naik</i>
31		Vulugundam Sudha Sarayu	<i>V Sudha Sarayu</i>
32		Y Monisha	<i>Y Monisha</i>
33		Yashika S Shinde	<i>Yashika Shinde S.</i>

  
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Dayananda Sagar College of Dental Sciences, Bangalore, Department of Physiology

Time: 1.5 hours

Max Marks: 35

Date: 06-09-2022

BDS 2nd Internal Assessment Examination regular Batch 2022, First year physiology

Answer all questions and they should be specific. Draw neat labelled diagrams wherever necessary.

LONG ESSAY

1 X 10 = 10 Mark

1. With the help of diagrams write in detail about cardiac cycle add a note on heart sounds

SHORT ESSAY

3 X 5 = 15 Marks

2. Write in detail about growth hormone
3. Write in detail about spermatogenesis
4. write in detail about female menstrual cycle

SHORT ANSWERS

5x2 =10 Marks

5. 4 functions of kidney
6. 4 methods of contraception
7. waves of ECG with their cause
8. Juxtaglomerular apparatus structure
9. 4 features of Cushing's syndrome

  
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DAYANANDA SAGAR COLLEGE OF DENTAL SCIENCES

1st Internal Assessment Theory Examination

I BDS 2021-2022 Regular Batch


Subject: Physiology & Biochemistry

Date: 06/09/2022

Sl. No.	Student Name	Signature
1	A Swetha	<u>A Swetha</u>
2	Amal Aqsa	<u>Amal Aqsa</u>
3	Anam Zara Khan	<u>Anam Zara Khan</u>
4	Ananya C	<u>Ananya C</u>
5	Anuja Trivedi	Absent
6	Anusha K S	Absent
7	Anushree Prasad Katte	<u>Anushree</u>
8	Aparna Dwivedi	<u>Aparna</u>
9	Arunachalam D V	<u>Arunachalam D.V.</u>
10	Dari Anu	<u>Dari Anu</u>
11	Debonita Goala	Absent
12	Deeksha N	<u>Deeksha</u>
13	Deepak A S	Absent
14	Deepika V	<u>Deepika V</u>
15	Dharun Prasanth K	Absent
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17	Hemavathi V	<u>Hemavathi V.</u>
18	Hithendarsingh G	Absent
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20	Ivana G Joanne	<u>Ivana</u>
21	Kavana L	<u>Kavana</u>
22	Keerthi K	<u>Keerthi K</u>
23	Mahalakshmi R N	<u>Mahalakshmi</u>
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30	Niharika J	<u>Niharika</u>
31	Poornima T N	<u>Poornima</u>
32	Pravasi Neva Sachin	<u>Pravasi</u>

PRINCIPAL  
Dayananda Sagar College of Dental Sciences  
Kumaraswamy Layout,  
Bangalore - 560 078.

Sl.No.	Student Name	Signature
33	Priyanka Jadhav	Absent
34	Pushpalekha H S	Pushpalekha H S
35	S Sri Gayathri Devi	S Sri Gayathri Devi
36	Samridhi Mathur	Samridhi Mathur
37	Sange Dorjee Thungon	Absent
38	Sanjana Bharadwaj	Sanjana
39	Sanjana R	Sanjana R
40	Santhosh T	Santhosh T
41	Shifa Nazima	Shifa Nazima
42	Sindhu S	Sindhu S
43	Sindhushree M	Sindhushree M
44	Smrithi S	Smrithi S
45	Sufiyah Siddiqua	Sufiyah Siddiqua
46	Sujith P S	Sujith P S
47	Tanishka Talreja	Tanishka Talreja
48	Thrishika M	Absent
49	V.C.Vetha Vikasini	V.C.Vetha Vikasini
50	Vaibhavi Prakash	Vaibhavi Prakash
51	Vasunita S	Vasunita S
52	Vignesh V	Vignesh V
53	Zaara Jasmine	Zaara Jasmine

  
**PRINCIPAL**  
 Deyananda Sagar College of Dental Sciences  
 Kumaraswamy Layout,  
 Bangalore - 560 076.

**DAYANANDA SAGAR COLLEGE OF DENTAL SCIENCES,**  
**BANGALORE.**

**I B.D.S, 1<sup>st</sup> Internal Assessment**

**SUBJECT: Biochemistry (1.07.2022)**

**Time: 1Hr. 30 Min.**

**Max. marks:35**

Your answers should be specific to the questions asked.

Draw diagrams wherever necessary.

Answer all the questions.

**LONG ESSAY**

1x10=10 marks

1. Describe the levels of organization of protein structure. Formation and features of peptide bond with determination of primary structure. (5+2+3)

**SHORT ESSAY**

3x5=15 marks

2. Functions of phospholipids.
3. Structure of DNA.
4. Define disaccharides. Give examples. Explain one example with structure.

**SHORT ANSWER QUESTIONS**

5x2=10 marks

5. Saponification number.
6. Essential amino acids.
7. m-RNA.
8. Epimers.
9. Plasma proteins.

  
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Dayananda Sagar College of Dental Sciences  
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Bangalore - 560 078.

DAYANANDA SAGAR COLLEGE OF DENTAL SCIENCES

1st Internal Assessment Theory Examination

I BDS 2021-2022 Regular Batch

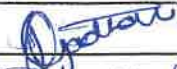
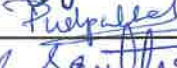
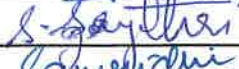
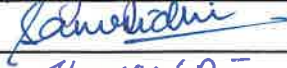


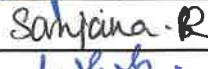
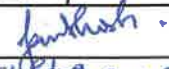
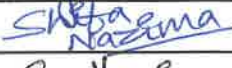
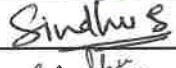
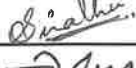


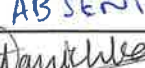
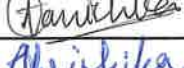

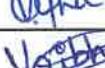




Subject: Biochemistry .....

Date: 5.7.2022

Sl. No.	Student Name	Signature
1	A Swetha	<u>A Swetha</u>
2	Amal Aqsa	<u>Amal Aqsa</u>
3	Anam Zara Khan	<u>Anam Zara Khan</u>
4	Ananya C	<u>Ananya C</u>
5	Anuja Trivedi	<u>Anuja Trivedi</u>
6	Anusha K S	<u>Anusha</u>
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22	Keerthi K	<u>ABSENT</u>
23	Mahalakshmi R N	<u>Mahalakshmi R N</u>
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25	Mohammed Adnan Khan	<u>Mohammed Adnan Khan</u>
26	N Lahari	<u>N Lahari</u>
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30	Niharika J	<u>Niharika</u>
31	Poornima T N	<u>Poornima</u>
32	Pravasi Neva Sachin	<u>Pravasi</u>

PRINCIPAL

Dayananda Sagar College of Dental Sciences  
Kumaraswamy Layout,  
Bangalore - 560 078.

Sl. No.	Student Name	Signature
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35	S Sri Gayathri Devi	
36	Samridhi Mathur	
37	Sange Dorjee Thungon	
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51	Vasunita S	
52	Vignesh V	
53	Zaara Jasmine	

  
**PRINCIPAL**  
 Jyagananda Nagar College of Dental Sciences  
 Kumaraswamy Layout,  
 Bangalore - 560 073.

**Dayananda Sagar College of Dental Sciences, Bengaluru**  
**Department of Oral Pathology**

Time: 3 hours

Max Marks: 70

Date: 4-11-2022

**BDS Third internal – Regular Batch 2022-2023**

**FIRST BDS, Subject of Dental anatomy and Dental Histology**

Answer all questions and they should be specific. Draw neat labelled diagrams wherever necessary.

**LONG ESSAY**

**2 X 10 = 20 Marks**

1. Write in detail morphology of Permanent maxillary molar
2. Explain in detail Ducto acinar system of salivary gland

**SHORT ESSAY**

**8 X 5 = 40Marks**

3. Describe in detail non keratinocytes
4. Tabulate the difference between Acellular Extrinsic fiber cementum and Cellular Intrinsic Fiber Cementum
5. Histology of tooth movement during eruption.
6. Cap stage of tooth development
7. Describe histology of maxillary sinus. Add a note on its functions.
9. Events in bone remodeling
10. Theories of dentin hypersensitivity

**VERY SHORT ANSWERS**

**5x2 =10 Marks**

11. Mention unique features of PDL
12. Pulpal stem cells
13. Prismatic enamel
14. Derivatives of neural crest
15. Name clearing and fixing agents for preparation of specimen during histologic study.

  
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Kumaraswamy Layout,  
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DAYANANDA SAGAR COLLEGE OF DENTAL SCIENCES

3<sup>rd</sup> Internal Assessment Theory Examination


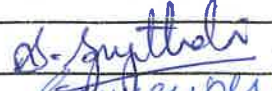
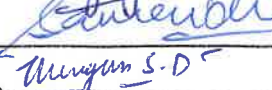
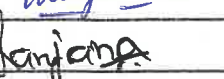
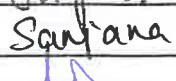

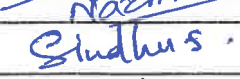
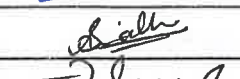
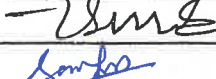
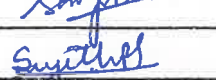
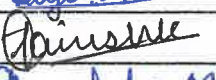


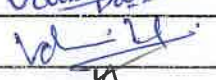

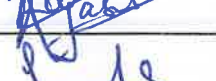




I BDS 2021-2022 Regular Batch

Subject: Dental anat. & dental histology

Date: 11/11/22

Sl. No.	Student Name	Signature
1	A Swetha ✓	<u>A Swetha</u>
2	Amal Aqsa	<u>Amal Aqsa</u>
3	Anam Zara Khan ✓	<u>Anam Zara Khan</u>
4	Ananya C	<u>Ananya C</u>
5	Anuja Trivedi	<u>Anuja Trivedi</u>
6	Anusha K S ✓	<u>Anusha K S</u>
7	Anushree Prasad Katte ✓	<u>Anushree Prasad Katte</u>
8	Aparna Dwivedi ✓	<u>Aparna Dwivedi</u>
9	Arunachalam D V	<u>Arunachalam D V</u>
10	Dari Anu ✓	<u>Dari Anu</u>
11	Debonita Goala ✓	<u>Debonita Goala</u>
12	Deeksha N ✓	<u>Deeksha N</u>
13	Deepak A S	<u>Deepak A S</u>
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29	Nicole Lasrado ✓	<u>Nicole Lasrado</u>
30	Niharika J	<u>Niharika J</u>
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32	Pravasi Neva Sachin	<u>Pravasi Neva Sachin</u>

PRINCIPAL  
Dayananda Sagar College of Dental Sciences  
Kumaraswamy Layout,  
Bangalore - 560 078.

Sl. No.	Student Name	Signature
33	Priyanka Jadhav	
34	Pushpalekha H S ✓	
35	S Sri Gayathri Devi ✓	
36	Samridhi Mathur ✓	
37	Sange Dorjee Thungon ✓	
38	Sanjana Bharadwaj	
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49	V.C.Vetha Vikasini	
50	Vaibhavi Prakash ✓	
51	Vasunita S	
52	Vignesh V	
53	Zaara Jasmine	

54. Sunil S

  
**PRINCIPAL**  
 Dayananda Sagar College of Dental Sciences  
 Kumaraswamy Layout,  
 Bangalore - 560 078.



# Dayananda Sagar College of Dental Sciences, Bengaluru

Time: 3 hours

Max Marks: 70 Date: 02/12/2019

BDS 1<sup>st</sup> Internal Assessment Examination Nov-Dec 2019 – Regular Batch 2019-2020

II Year BDS, Subject of Dental Materials

Answer all questions and they should be specific. Draw neat labelled diagrams wherever necessary.

## LONG ESSAY

1. Classify impression materials. Describe the composition, setting reaction and properties of alginate impression material. 2 X 10 = 20 Marks
2. Classify amalgam alloys. Write in detail about high copper amalgam alloys.


## SHORT ESSAY

3. Setting reaction of GIC.
4. Expansion of gypsum products.
5. Acid etching – materials & pattern of etching.
6. Stress and strain.
7. Composition & setting reaction of  $ZnPO_4$
8. Classify composites.
9. Methods of curing denture base resins.
10. Theories of setting, factors affecting setting time and measurement of setting time of gypsum products. 8 X 5 = 40 Marks

## SHORT ANSWERS

11. Micro hardness tests.
12. Delayed expansion.
13. Cavity liners.
14. Agar conditioner.
15. Curing lights

5 x 2 = 10 Marks

  
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Kumaraswamy Layout,  
Bengaluru - 560 078.

**DAYANANDA SAGAR COLLEGE OF DENTAL SCIENCES**

Shavige Malleswara Hills, Kumaraswamy Layout, Bangalore 560 078.

**BDS 1st Internal Assessment Examination Nov-Dec 2019 - Regular Batch 2019-2020**

**Second BDS Student Seating List / Attendance**

Class Room 1			Class Room 2		
Reg No	Name of the Student	Signature	Reg.No.	Name of the Student	Signature
18D0073	Adanya. K.A	<i>Adanya KA</i>	18D0099	Roseline Dsouza	<i>Roseline</i>
18D0074	Aishwarya .B. Girepnor	<i>Aishwarya</i>	18D0100	Sadhvi. N.C	<i>Sadhvi</i>
18D0075	Akshhat Sanidhya	<b>ABSENT</b>	18D0101	Sejal Bhardwaj	<i>Sejal</i>
18D0077	Asma Firdose. I	<i>Asma.firdose</i>	18D0102	Sheema Anjum	<i>Sheema</i>
18D0079	C. Sarada Sanjana	<i>Sarada</i>	18D0103	Shiksha Sunil Mukundappanavar	<i>Shiksha</i>
18D0080	Deepak. M. P.	<i>Deepak</i>	18D0104	Simran Naik	<i>Simran</i>
18D0081	Devashish Manibushan Pandit	<i>Devashish</i>	18D0105	Sirisha. R	<i>Sirisha</i>
18D0084	Hosalli Akash	<i>Akash</i>	18D0106	Sreeja Gupta	<i>Sreeja</i>
18D0085	Isani Inara Salim	<i>Isani</i>	18D0107	Srikeerthi. H	<i>Srikeerthi</i>
18D0086	Kantle Preethi	<i>KPreethi</i>	18D0109	Sukanya .I. Kashyap	<i>Kashyap</i>
18D0087	Keerthana. J	<i>Keerthana J</i>	18D0110	Susana Maharana	<i>Susana</i>
18D0089	Meghana Prasad	<i>Meghana</i>	18D0111	Syed Majdi Mohammadi	<i>Syed Majdi</i>
18D0090	Mili Goswami	<i>Mili</i>	18D0112	Vinutha. J. V	<i>Vinutha J.V</i>
18D0091	Monish Kumar. N	<b>ABSENT</b>	17D1630	Neha Kattimani	<i>Neha</i>
18D0092	N. K. Kanishka Saini	<i>Kanishka</i>	17D1634	Punja Samika Shankara	<i>Samika</i>
18D0093	Nimra Tazain	<i>Nimra</i>	15D1605	Anush Kumar. S A	<i>Anush</i>
18D0094	Nishad Noukhiz	<i>Nishad</i>	06D0416	Leila Gharavi	<b>ABSENT</b>
18D0096	Prathibha Yallappa Karlannavar	<i>Prathibha</i>			
18D0097	Priyanka Kolakar	<i>Priyanka</i>			
18D0098	R. Michael Sam	<i>Michael</i>			

*[Signature]*  
**PRINCIPAL**  
 Dayananda Sagar College of Dental Sciences  
 Kumaraswamy Layout,  
 Bangalore - 560 078.

**Dayananda Sagar College of Dental Sciences, Bengaluru**

**Department of Pharmacology**

Time: 3 hours

Max Marks: 70

Date: 29-11-2019

**BDS 1<sup>st</sup> Internal Assessment Examination Nov-Dec 2019 – Regular Batch 2019-2020**

**Second BDS, Subject - PHARMACOLOGY**

Answer all questions and they should be specific. Draw neat labelled diagrams wherever necessary.

**LONG ESSAY**

**2 X 10 = 20 Marks**

1. Define bioavailability? Enumerate the various factors affecting bioavailability?
2. Define Receptor? Enumerate the factors modifying drug action?

**SHORT ESSAY**

**8 X 5 = 40Marks**

3. Plasma protein binding?
4. Enzyme induction?
5. Plasma Half life?
6. Fixed Dose combination?
7. Prodrug?
8. Drug Antagonism
9. Transdermal delivery system
10. Advantage and disadvantage of oral route?

**SHORT ANSWERS**

**5x2 =10 Marks**

11. Define tachyphylaxis? Give one example?
12. Define therapeutic index and its clinical significance?
13. First Pass metabolism
14. Define zero order kinetics? Give one example?
15. Sublingual route?

  
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KumaraSwamy Layout,  
Bangalore - 560 078.

**DAYANANDA SAGAR COLLEGE OF DENTAL SCIENCES**

Shavige Malleswara Hills, Kumaraswamy Layout, Bangalore 560 078.

BDS 1st Internal Assessment Examination Nov-Dec 2019 - Regular Batch 2019-2020

**Second BDS Student Seating List / Attendance**

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Reg No	Name of the Student	Signature	Reg.No.	Name of the Student	Signature
18D0073	Adamyia. K.A	<i>Adamyia</i>	18D0099	Roseline Dsouza	<i>Roseline</i>
18D0074	Aishwarya .B. Girepnor	<i>Aishwarya</i>	18D0100	Sadhvi. N.C	<i>Sadhvi</i>
18D0075	Akshhat Sanidhya	<i>Akshhat</i>	18D0101	Sejal Bhardwaj	<i>Sejal</i>
18D0077	Asma Firdose. I	<i>Asma firdose</i>	18D0102	Sheema Anjum	<i>Sheema</i>
18D0079	C. Sarada Sanjana	<i>Sarada</i>	18D0103	Shiksha Sunil Mukundappanavar	<i>Shiksha</i>
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18D0081	Devashish Manibushan Pandit	<i>Devashish</i>	18D0105	Sirisha. R	<i>Sirisha</i>
18D0084	Hosalli Akash	<i>Akash</i>	18D0106	Sreeja Gupta	<i>Sreeja</i>
18D0085	Isani Inara Salim	<i>Isani</i>	18D0107	Srikeerthi. H	<i>Srikeerthi</i>
18D0086	Kantle Preethi	<i>K.Preethi</i>	18D0109	Sukanya .I. Kashyap	<i>Sukanya</i>
18D0087	Keerthana. J	<i>Keerthana J.</i>	18D0110	Susana Maharana	<i>Susana</i>
18D0089	Meghana Prasad	<i>Meghana</i>	18D0111	Syed Majdi Mohammadi	<i>Syed Majdi</i>
18D0090	Mili Goswami	<i>Mili</i>	18D0112	Vinutha. J. V	<i>Vinutha</i>
18D0091	Monish Kumar. N	<i>Monish</i>	17D1630	Neha Kattimani	<i>Neha</i>
18D0092	N. K. Kanishka Saini	<i>Kanishka</i>	17D1634	Punja Samika Shankara	<i>Samika P.</i>
18D0093	Nimra Tazain	<i>Nimra</i>	15D1605	Anush Kumar. S A	<i>Anush</i>
18D0094	Nishad Noukhiz	<i>Nishad</i>	06D0416	Leila Gharavi	→ ABSENT
18D0096	Prathibha Yallappa Karlannavar	<i>Prathibha</i>			
18D0097	Priyanka Kolakar	<i>Priyanka</i>			
18D0098	R. Michael Sam	<i>Michael</i>			

*H*  
**PRINCIPAL**  
 Dayananda Sagar College of Dental Sciences  
 Kumaraswamy Layout,  
 Bangalore - 560 078.

**Dayananda Sagar College of Dental Sciences, Bengaluru**  
**Department of General Pathology & Microbiology**

Time: 3 hours

Max Marks: 35

Date: 24-02-2020

**BDS 2<sup>nd</sup> Internal Assessment Examination Nov-Dec 2019 – Regular Batch 2019-2020**

**Second BDS, Subject MICROBIOLOGY**

Answer all questions and they should be specific. Draw neat labelled diagrams wherever necessary.

**LONG ESSAY**

**1 X 10 = 10 Marks**

1. Explain in detail about the pathogenesis and laboratory diagnosis of Mycobacterium tuberculosis. Add a note on BCG.

**SHORT ESSAY**


**3X 5 = 15Marks**

2. Prophylaxis against Rabies.
3. Cultivation of viruses.
4. Diseases caused by Streptococcus.

**SHORT ANSWERS**

**5x2 =10 Marks**

5. Mention four contributions of Robert Koch.
6. Biological effects of complement.
7. Bacterial Conjugation.
8. Pasteurisation.
9. Quellung reaction.

  
**PRINCIPAL**  
Dayananda Sagar College of Dental Sciences  
Kumaraswamy Layout,  
Bangalore - 560 078.

# MICROBIOLOGY

## DAYANANDA SAGAR COLLEGE OF DENTAL SCIENCES

Shavige Malleswara Hills, Kumaraswamy Layout, Bangalore 560 078.

**BDS 2nd Internal Assessment Examination Feb - Mar 2020 - Regular Batch 2019-2020**

### Second BDS Student Seating List / Attendance

Class Room 1				Class Room 2			
Sl. No.	Reg No	Name of the Student	Signature	Sl. No.	Reg No	Name of the Student	Signature
1	18D0073	Adamyia. K.A		1	18D0099	Roseline Dsouza	
2	18D0074	Aishwarya .B. Girepnor		2	18D0100	Sadhvi. N.C	
3	18D0075	Akshhat Sanidhya	ABSENT	3	18D0101	Sejal Bhardwaj	
4	18D0077	Asma Firdose. I	Asma	4	18D0102	Sheema Anjum	
5	18D0079	C. Sarada Sanjana		5	18D0103	Shiksha Sunil Mukundappanavar	
6	18D0080	Deepak. M. P.		6	18D0104	Simran Naik	
7	18D0081	Devashish Manibushan Pandit		7	18D0105	Sirisha. R	
8	18D0084	Hosalli Akash		8	18D0106	Sreeja Gupta	
9	18D0085	Isani Inara Salim		9	18D0107	Srikeerthi. H	
10	18D0086	Kantle Preethi		10	18D0109	Sukanya .I. Kashyap	
11	18D0087	Keerthana. J		11	18D0110	Susana Maharana	
12	18D0089	Meghana Prasad		12	18D0111	Syed Majdi Mohammadi	
13	18D0090	Mili Goswami		13	18D0112	Vinutha. J. V	
14	18D0091	Monish Kumar. N		14	17D1630	Neha Kattimani	
15	18D0092	N. K. Kanishka Saini		15	17D1634	Punja Samika Shankara	
16	18D0093	Nimra Tazain		16	15D1605	Anush Kumar. S A	
17	18D0094	Nishad Noukhiz		17	06D0416	Leila Gharavi	ABSENT
18	18D0096	Prathibha Yallappa Karlannavar					
19	18D0097	Priyanka Kolakar					
20	18D0098	R. Michael Sam					

*[Handwritten Signature]*  
 Dayananda Sagar College of Dental Sciences  
 Kumaraswamy Layout,  
 Bangalore - 560 078.

*[Handwritten Signature]*  
**PRINCIPAL**  
 Dayananda Sagar College of Dental Sciences  
 Kumaraswamy Layout,  
 Bangalore - 560 078.

Time: 3 Hrs.

[Max. Marks: 70]

**ORAL AND MAXILLOFACIAL PATHOLOGY**

Your answers should be specific to the questions asked. **12.7.22**  
 Draw neat labeled diagrams wherever necessary.

**LONG ESSAY****2 X 10 = 20 Marks**

1. Classify benign and malignant salivary gland tumors. Discuss the clinical and histopathological features Of mucoepidermoid carcinoma and add a note on its grading system.
2. Classify fibro osseous lesions. Discuss in detail about Paget's disease of bone.

**SHORT ESSAY****8 X 5 = 40 Marks**

3. Trigeminal Neuralgia
4. Explain physical injuries of oral and paraoral tissue
5. Histopathologic subtypes of Ameloblastoma
6. Metabolic disorders of the Jaw
7. Osteosarcoma.
8. Herpes simplex virus
9. Clinical features and Histopathology of Verrucous Carcinoma
10. Classify vesiculobullous lesions. Discuss in detail about histopathological features of Lichen planus.

**SHORT ANSWERS****5 X 2 = 10 Marks**

11. Garre's osteomyelitis
12. Role of cytology in the diagnosis of oral lesions"
13. Define Attrition, abrasion and erosion
14. Congenital syphilis.
15. Gustafson's Method

**PRINCIPAL**  
 Dayananda Sagar College of Dental Sciences  
 Kumaraswamy Layout,  
 Bangalore - 560 078.

DAYANANDA SAGAR COLLEGE OF DENTAL SCIENCES

Final Internal Assessment Theory Examination

III BDS 2021-2022 Regular Batch

Subject: ORAL PATHOLOGY

Date: 12.07.2022

Sl. No.	Reg. No.	Name of the Students	Signature
1	19D0063	Aminul Hassan Laskar	ABSENT
2	19D0064	Andrea Maria Fonseca	<i>Andrea Maria</i>
3	19D0066	Apramita Sarangi	<i>Apramita</i>
4	19D0067	Ayesha Noorain A	<i>Ayesha Noorain A</i>
5	19D0068	Ayesha Sameen	<i>Ayesha Sameen</i>
6	19D0069	Chaitra. G	<i>Chaitra G</i>
7	19D0070	D Sai Sreeja	<i>D. Sreeja</i>
8	19D0073	Gagan. C. P	<i>Gagan</i>
9	19D0074	Harshitha B.Y	<i>Harshitha</i>
10	19D0075	Huda Nadeem	<i>Huda</i>
11	19D0076	Indu. K	<i>Indu</i>
12	19D0077	Jeff Patrick	<i>Jeff Patrick</i>
13	19D0080	K. Ram Shishir Reddy	<i>Shishir</i>
14	19D0081	Madhura. R	<i>Madhura</i>
15	19D0083	Malavikha V	<i>Malavikha V</i>
16	19D0084	Mamatha Suthar	<i>Mamatha</i>
17	19D0085	Megha. S	<i>Megha</i>
18	19D0086	Miriyala Rishitha	<i>M. Rishitha</i>
19	19D0088	Perumal Sowmya	<i>P. Sowmya</i>
20	19D0090	Pradnya Lagare	<i>Pradnya</i>
21	19D0091	Preethi. T	<i>Preethi</i>
22	19D0094	Sahana. A. V	<i>Sahana A.V</i>
23	19D0095	Sahana Suggi. A. K	<i>Suggi A.K</i>
24	19D0096	Sanjana K Murthy	<i>Sanjana K Murthy</i>
25	19D0097	Sayani Sarkar	<i>Sayani Sarkar</i>
26	19D0098	Shobha I Ganiger	<i>Shobha I Ganiger</i>

PRINCIPAL

Dayananda Sagar College of Dental Sciences  
Kumaraswamy Layout,  
Bangalore - 560 078.



Sl. No.	Reg. No.	Name of the Students	Signature
27	19D0099	Shreshth Sarthak Adavi	<i>Shreshth</i>
28	19D0100	Sindhu. K.T	<i>Sindhu.</i>
29	19D0101	Srijani Chowdhury	<i>Srijani</i>
30	19D0103	Swaroop Kumar M S	<i>Swaroop Kumar M S</i>
31	19D0104	Thanushree. N	<i>Thanushree N.</i>
32	18D0108	Sudiksha Sharma	<i>Sudiksha</i>
33	18D0112	Vinutha J V	<i>Vinutha J V.</i>
34	15D1605	Anush Kumar S A	<b>ABSENT</b>

35. 18D0098 Michael Sam R

*Michael Sam R*

*H U*  
**PRINCIPAL**  
 Dayananda Sagar College of Dental Sciences  
 Kumaraswamy Layout,  
 Bangalore - 560 078.

LONG ESSAY (1X10=10 MARKS)

- 1) Write in detail about pleomorphic adenoma- clinical signs and symptoms, treatment plan

SHORT ESSAY (5X4 =20 MARKS)

- 2) Non hodgkin's lymphoma.
- 3) Types of haemorrhage.
- 4) Thyrotoxicosis.
- 5) Mumps.

SHORT ANSWER (5X1=5 MARKS)

- 6) Name the lymph nodes of head and neck.
- 7) Frey's syndrome.
- 8) Stenson's duct.
- 9) Sialolith.
- 10) Facial nerve and its branches.

  
**PRINCIPAL**  
Dayananda Sagar College of Dental Sciences  
Kumaraswamy Layout,  
Bangalore - 560 075.

General Surgery

III INTERNAL 26/4/2019

		Roll.no	
1.	PATHIPATI. DIVYA.	33	Pathipati Divya
2.	AMULYA. M. Gowda	5	Amulya
3.	RASHIKA TRIPATHI	35	Rashika
4.	ARCHANA. I.P	10	Archana
5.	SOWMYA.A	39	Sowmya
6.	ASHWARYA KH.	19	Ashwarya K.H.
7.	POUKHUN PANME	34	Poukhan
8.	VIJAY SINGH JADOUNI	41	Vijay
9.	NIHARIKA. R.V.	29	Niharika R.V.
10.	KRUTHI M.S	22	Kruthi
11.	MEELU BABU	24	Meelu
12.	KARMA. K.P.	21	Karma
13.	PINKI DAS	42	Pinkid
14.	SHYAMALIMADAS	43	Shyam
15.	ELIZABETH AJI	14	Elizabeth
16.)	ANANDI GANGULI	6	Anandi
17.)	BARSHA SAIKIA	12	Barsha
18.)	Ishani Das	16	Ishani
19.	Kojal Yadav	20	Kojal
20.)	Anjali Kaushik	8	Anjali
21.)	SUMERAN SENHA		Sumeran
22.	K. Ganga. Sphurthi		Sphurthi

PRINCIPAL  
 Dayananda Sagar College of Dental Sciences  
 Kumaraswamy Layout,  
 Bangalore - 560 075.

23.	SHRIYANSHI SINGH	88	Shriyanshi
24	ALIYA KAUSER	03	Aliya
25	NIKITA SINGH.	30	Nikita
26	Mobin Fathima	26	M. Fathima.
27	Akshay Anand	02	Akshay
28.	Pallavi R.Y.	31	Pallavi R.Y.
29.	Arvind Patil	9	A. J. Patil
30.	Daniel Bovan	13	Daniel
31.	Monik Roy	27.	Monik Roy
32.	NAVNEETHA ACHARYA	28	Navneetha
33.	PARIKEERTHAN. Y.P	32	Parikethan. Y. P
34.	ARSHIYA KAUSER. A	11	Arshiya
35.	MINU KUMARI	25	Minu
36.	HEMAVATI. ROOJI.	15	Hemaji
37	ROOPASHREE. N	36	Roopashree
38.	JAYA B. KAMAT	17	Jaya
39.	M. ALBERT NOEL	23	Albert
40.	ANANTHU. T. SURESH	7	Ananthu
41	AISHWARYA VIJAY	1	Aishwarya
42.	ALLEN. S. JOSEPH	4	Allen S. Joseph
43.	Gebina Pertiwi	44	Gebina
44.	S. SHIVANI	46	Shivani

PRINCIPAL  
Dapananda Hegar College of Dental Sciences  
Kumaraswamy Layout,  
Bangalore - 560078.

**Dayananda Sagar College of Dental Sciences, Bengaluru**

**Department of < General Medicine >**

Time: 3 hours

Max Marks: 70

Date: < 02-12-19 >

**BDS 1<sup>st</sup> Internal Assessment Examination Nov-Dec 2019 – Regular Batch 2019-2020**

**< 2019-2020 > BDS, Subject of < General Medicine >**

Answer all questions and they should be specific. Draw neat labelled diagrams wherever necessary.

**LONG ESSAY**

**2 X 10 = 20 Marks**

1. Describe the Pathogenesis, Clinical features, Investigations, Management and prevention of Malaria
2. What is Acute coronary syndrome? Describe the Clinical features, Diagnosis, Investigations, Management and complications of Acute Coronary Syndrome

**SHORT ESSAY**

**8 X 5 = 40 Marks**

3. Typhoid fever
4. Acute Rheumatic fever
5. Dysphagia
6. Viral Hepatitis A
7. Infective Endocarditis
8. Tuberculosis
9. Essential Hypertension
10. Mitral Stenosis

**SHORT ANSWERS**

**5x2 = 10 Marks**

11. Name 2 Congenital Heart Diseases
12. Name 2 causes of Secondary Hypertension
13. Name 2 Regurgitant valvular heart diseases
14. Name 2 Antitubercular Drug side effects
15. Name 2 Hypertension Drug side effects

**PRINCIPAL**  
Dayananda Sagar College of Dental Sciences  
Kumaraswamy Layout,  
Bangalore - 560 078.

Subject:- General Medicine

2.12.19

**DAYANANDA SAGAR COLLEGE OF DENTAL SCIENCES**

Shavige Malleswara Hills, Kumaraswamy Layout, Bangalore 560 078.

**BDS 1st Internal Assessment Examination Nov-Dec 2019 - Regular Batch 2019-2020**

**Third BDS Student Seating List / Attendance**

Class Room 3			Class Room 4		
Reg No	Name of the Student	Signature	Sl.No.	Name of the Student	Signature
17D1601	Aishwarya Biswas	<i>Aishwarya</i>	17D1627	Manu. K	<i>Manu. K</i>
17D1602	Ankita Arya	<i>Ankita</i>	17D1629	N. Chaitra	<i>Chaitra</i>
17D1604	Ashwini. C	<i>Ashwini</i>	17D1631	Pradeep Raj. J	<i>Pradeep Raj</i>
17D1605	Atika Ifath	<i>Atika</i>	17D1632	Pragya Singh	<i>Pragya Singh</i>
17D1608	Chatre Aishwarya	<i>Chatre Aishwarya</i>	17D1633	Prarthana Bharadwaj	<i>Prarthana Bharadwaj</i>
17D1609	Chiraag. S	<i>Chiraag</i>	17D1637	Saumya	<i>Saumya</i>
17D1611	Ekta Singh	<i>Ekta Singh</i>	17D1638	Sudha. S. K.	<i>Sudha</i>
17D1612	G. C. Gargi Prakash	<i>G. C. Gargi Prakash</i>	17D1639	Surabi Sasi	<i>Surabi Sasi</i>
17D1613	Gajare Ganesh Dattatray	<i>Gajare Ganesh Dattatray</i>	17D1641	Vishal	<i>Vishal</i>
17D1614	Geetha Priya. Y. B	<i>Absent</i>	16D1649	Shubhangi Prakash Gupta	<i>Shubhangi</i>
17D1615	Harshitha. B. N	<i>Harshitha</i>	16D1628	Khesia Edison	<i>Khesia</i>
17D1616	Harshitha N G Puranik	<i>harshitha</i>	14D1617	Chandana Kalita	<i>Chandana</i>
17D1617	Hima .A. Girish	<i>Hima</i>			
17D1618	Hitesh. N	<i>Hitesh</i>			
17D1619	Jyoti Singh	<i>Jyoti Singh</i>			
17D1620	Kankanala Sridivya	<i>Kankanala</i>			
17D1622	Kaveri .S. Sultanpuri	<i>Kaveri</i>			
17D1623	Komal Jain. M	<i>Komal</i>			
17D1624	Komal Singh	<i>Komal</i>			
17D1626	Manoj Kumar. T. V	<i>Manoj Kumar. T. V.</i>			

**PRINCIPAL**  
Dayananda Sagar College of Dental Sciences  
Kumaraswamy Layout,  
Bangalore - 560 078.

**DEPARTMENT OF ORAL MEDICINE AND RADIOLOGY  
DAYANANDASAGAR DENTAL COLLEGE, BANGALORE**

Final year Regular Batch (July 2018-19)  
I Internal assessment test

Duration :3 hrs

Max mark: 70  
Date- 03/12/2018

**Answer all questions to the point. Draw neat labeled diagrams wherever required**

**Long essay**

**10x2=20**

11. Describe in detail production of X-rays. Add a note on factors affecting x-ray Production
12. Discuss the etiology, clinical features and management of Primary Herpetic Gingivo Stomatitis

**Short essay**

**8x 5=40**

13. Significance of Medical History
14. Radiographic features of Chronic Periapical abscess and Periapical Granuloma
15. Sickle cell anemia-clinical and radiographic features
16. Radicular cyst – Clinical features and Radiographic features
17. Grids
18. Normal radiopaque landmarks of maxilla
19. Steps in manual processing of radiographs
20. Protection of radiographic personnel

**Short answers**

**10x2=20**

11. Cyanosis
14. Principle of Bisecting angle technique
15. Causes of dark radiograph
16. ~~ESD~~ badges *Amayya technique de TMJ*
17. Radiographic classification of periodontitis

**PRINCIPAL**  
Dayananda Sagar College of Dental Sciences  
Kumaraswamy Layout,  
Bangalore - 560 078.

ORAL MEDICINE AND RADIOLOGY -1<sup>ST</sup> INTERNAL ASSESSMENT -FINAL YEAR

REGULAR BATCH - ATTENDENCE SHEET -2018-19

S.L No.	Student Unique Enrolment ID	Name of the student	Signature
1	09D1632	Negin Shamsi Jokandan	Negin
2	09D1625	Mehrab Mesgarani	Mehrab
3	10D1660	Ameneh Mohammad Aziz Tarbaneh	Ameneh
4	11D1650	Nikita Barbaruah	Nikita
5	12D1653	Minahazul Hoque Choudhary	MH
6	12D1621	Kiran Dev	KD
7	14D1634	Rashmitha B S	Rashmitha
8	14D1653	Sreejit Saha	Sreejit Saha
9	14D1659	Zain Mehkri	Zain
10	15D1602	Akshata Ohm	Akshata ohm
11	15D1603	Anaida Acharya	Anaida
12	15D1604	Ananthesh. H. S	Ananthesh
13	15D1606	Ayushi Srivastava	Ayushi
14	15D1607	C. Surya Prakash	SP
15	15D1608	Chaithanya. S	Chaithanya
16	15D1611	Darshini Priya. M	Darshini
17	15D1612	Deepashri. S	Deepashri
18	15D1613	Divya Babu	D
19	15D1614	Gokul. K	G
20	15D1615	Harsha Mohandas	Harsha
21	15D1616	Jitha. P.P	Jitha
22	15D1617	Karthika. K. T.	Karthika
23	15D1618	Keerthi Krishnan Unni	Keerthi
24	15D1620	Likitha.M.N.	Likitha
25	15D1622	Madhuri Koushik. V. R.	Madhuri
26	15D1623	Mimansa Deshmukh	Koushik
27	15D1624	Mohammed Sadiq Kazi	Mimansa
28	15D1625	Nairuthya. K. P	Nairuthya. KP

PRINCIPAL  
Gayananda Sagar College of Dental Sciences  
Kumaraswamy Layout,  
Bangalore - 560 078.



29	15D1626	Naveen John	Naveen John
30	15D1630	Rajshree	Rajshree
31	15D1631	Raksha Kumari	Raksha
32	15D1633	Reshma. K	Reshma
33	15D1634	S. Hemanth Kumar	HK
34	15D1636	Shabnam Firdaus	Shabnam
35	15D1638	Sherin Paul. M	Sherin
36	15D1639	Shreya Agarwal	Shreya
37	15D1640	Sunaina Balan. N	Sunaina
38	15D1641	Swapnil Rastogi	Swapnil
39	15D1642	Swasti Bhardwaj	Swasti
40	15D1643	Swetha Chandran	Swetha
41	15D1644	Tasneem Banu. S.M	Tasneem Banu
42	15D1645	Vishnu Aithal.P.B.	VA
43	15D1647	Zuwaina Khan	Zuwaina
44	15D1648	Anju Sonpura	Anju
45	15D1650	Charu Sonegare	Charu
46	15D1651	Kishen. K. S.	Kishen
47	15D1652	Mahima. R	Mahima
48	15D1655	Safa Maryam	Safa
49	15D1658	Syed Mikayeel Abidi	Syed
50	15D1659	Syeda Ramz E Zehra	Syeda
51	15D1660	Tenzin Younten	Tenzin

  
**PRINCIPAL**  
 Dayananda Sagar College of Dental Sciences  
 Kumaraswamy Layout,  
 Bangalore - 560 078.

IV BDS 1<sup>st</sup> Internal Assessment – June 2022

Time: 3 hours  
70

Max marks:

**PUBLIC HEALTH DENTISTRY**

**I. Long essay (2 X 10= 20 marks):**

1. Define Defluoridation. Classify the defluoridation techniques used in dentistry. Discuss the NALGONDA technique in detail.
2. Define Epidemiology. Classify the different epidemiological study designs. Explain the epidemiological triad.

**II. Short essay (5 X 8 = 40 marks):**

3. Enumerate the various Principles of Health education. Explain any 4 in detail
4. What is solid Waste? Write the details of Bangalore method of waste disposal
5. Describe the clinical steps in pit and fissure sealant placement.
6. Define Primary Health Care. Explain the principles of primary health care.
7. Enumerate the differences between public health dentist and private dental practitioner
8. Explain slow sand filtration method with a clean neat labelled diagram.
9. State the duties of a dentist towards a patient and towards another dentist
10. List the indications and contra indications of Pit & fissure sealants

**III. Short answers (2 X 5 = 10 marks) :**

11. Loss of Head.
12. Etiological factors for Oral Cancer.
13. Any 4 mass media tools.
14. Explain ASKOV school dental program.
15. Who are Local Dais and Anganwadi workers?

**PRINCIPAL**  
Dayananda Sagar College of Dental Sciences  
Kumaraswamy Layout,  
Bangalore - 560 078.

DAYANANDA SAGAR COLLEGE OF DENTAL SCIENCES

1st Internal Assessment Theory Examination

IV BDS 2021-2022 Regular Batch

Subject: PUBLIC HEALTH DENTISTRY

Date: 23/06/2022

Sl.No.	Reg. No	Name of the Students	Signature
1	18D0073	Adamyia. K.A	
2	18D0074	Aishwarya .B. Girepnor	<del>ABSENT</del>
3	18D0077	Asma Firdose. I	Asma firdose.
4	18D0080	Deepak. M. P.	
5	18D0081	Devashish Manibushan Pandit	
6	18D0084	Hosalli Akash	
7	18D0085	Isani Inara Salim	
8	18D0086	Kantle Preethi	
9	18D0087	Keerthana. J	Keerthana J
10	18D0089	Meghana Prasad	Meghana P
11	18D0090	Mili Goswami	Mili Goswami
12	18D0091	Monish Kumar. N	Monish Kumar N
13	18D0092	N. K. Kanishka Saini	Kanishka
14	18D0093	Nimra Tazain	Nimra
15	18D0094	Nishad Noukhiz	Nishad
16	18D0096	Prathibha Yallappa Karlannavar	Pyn
17	18D0097	Priyanka Kolakar	Priyanka
18	18D0099	Roseline Dsouza	Roseline
19	18D0100	Sadhvi. N.C	Sadhvi
20	18D0101	Sejal Bhardwaj	Sejal
21	18D0102	Sheema Anjum	Sheema
22	18D0103	Shiksha Sunil Mukundappanavar	Shiksha SM
23	18D0104	Simran Naik	Simran
24	18D0105	Sirisha. R	Sirisha
25	18D0106	Sreeja Gupta	Sreeja

PRINCIPAL  
Dayananda Sagar College of Dental Sciences  
Kumaraswamy Layout,  
Bangalore - 560 076.

Sl.No.	Reg. No	Name of the Students	Signature
26	18D0107	Srikeerthi. H	<i>Srikeerthi H</i>
27	18D0109	Sukanya .I. Kashyap	<i>Sk</i>
28	18D0110	Susana Maharana	<i>Susana</i>
29	18D0111	Syed Majdi Mohammadi	<i>S. Majdi</i>
30	17D1628	Meghana S Gogal	<i>Meghana S Gogal</i>
31	17D1634	Punja Samika Shankara	<i>Punja Samika</i>
32	15D1635	Saurabh Bajapai	<i>Saurabh</i>

*H*  
**PRINCIPAL**  
Devaranda Nagar College of Dental Sciences  
Kumaraswamy Layout,  
Bangalore - 560 078.

**Dayananda Sagar College of Dental Sciences**  
**Department of Oral and Maxillofacial Surgery**  
**IV B.D.S. FINAL INTERNAL EXAMINATION – MAY 2019**

**Time: 3 hours**

**[Max Marks: 70]**

Your answers should be specific to the questions asked.  
Draw neat labelled diagrams wherever necessary.

**LONG ESSAY:**

**(2 x 10 = 20 Marks)**

1. Classify fractures of the middle third of the face. Write in detail about lefort 3 fractures. Add a note on CSF rhinorrhea
2. Write in detail about Primary fascial spaces

**SHORT ESSAY:**

**(6 x 5 = 30 Marks)**

1. Tracheostomy
2. Surgical management of potentially malignant lesions.
3. Glasgow coma scale
4. Dislocation of TMJ
5. Vestibuloplasty
6. Sialolithiasis.

**SHORT ANSWERS:**

**(2 x 10 = 20 Marks)**

1. White head varnish
2. Interpositional arthroplasty.
3. Carnoy's solution.
4. CSF rhinorrhea
5. Dean's alveoplasty
6. Resorbable suture materials
7. Types of dental wiring for facial bone fractures
8. Sequestrum
9. Surgicel and gelfoam
10. Metronidazole

\* \* \* \* \*

  
**PRINCIPAL**  
Dayananda Sagar College of Dental Sciences  
Kumaraswamy Layout,  
Bangalore - 560 078.

**QP Code: 0305**

ATTENDANCE  
ORAL SURGERY →

02/05/2019..

1. KARTHIKA . K T	<del>Mikayal</del>	29) Tameem S.M.	Tameem
2. Mikayal Abidi	<del>Mikayal</del>	30) Keerthi Krishnamoorti	Keerthi
3. Rajshree	Rajshree	31) SHERIN PADL . M	Sherin
4. Tenzin Younten	Tenzin	32) SHABNAM FIRDAUS	Shabnam Firdaus
5. SHEMANTH KUMAR	Shemant	33) ANAIDA ACHARYA	Anaida
6. Swasti Bhandari	Swasti	34) Kishan	Kishan
7. Ayushi Srivastava	Ayushi	35) Zain	Zain
8. Anshul Kestogi	Anshul Kestogi	36) Swetha	Swetha
9. Minansa Deshmukh	Minansa	37) Reshma.	Reshma
10. CREEJIT	Creejit	38) Raksha	Raksha
11. Nikita Babbarwal	Nikita	39) Aaju	Aaju
Negin Shamsi	Negin	40) Aksha	Aksha
13. Ameneh Tarbanih	Ameneh	41) Divya	Divya
<del>14. Anshul Kestogi</del>	<del>Anshul Kestogi</del>	42) Darshini Priya	Darshini Priya
14. KRITHA . M . N .	Kritha	43) Charthanya . S	Charthanya . S
15. RASHMITHA . B . S	Rashmita	44) Mahima	Mahima
16. DEEPAHRI . S	Deepahri	45) Mahantony . S	Mahantony . S
17. ANANTHESH . A . S	Anantha	46) Sitra	Sitra
18. Krishna . Dev	Krishna	47) Lokesh	Lokesh
19. SYEDA RAMEE	Syeda Ramee	48) Naveen	Naveen
KEHRA	Kehra		
20. AKSHATA DHAM	Akshata		
21. Chauri	Chauri		
22. MOHAMMED SADIQ KAZI	Mohammed		
23. CSURYA . PRAKASH .	CSURYA		
24. VISHNU . AITHA . A .	Vishnu		
25. SONOMA BALAN . N .	Sonoma		
26. KUNJANA KHAN	Kunjana		
27. SAFA MARYAM	Safa Maryam		
28. MADHURI KOUSHER	Madhuri Kousher		

ODD . BATCH

1. Aayush Adithyan
2. Mojtaba Balouch Akhbari
3. Essam aldeen
4. Nithya perya . V
5. Rashiya

PRINCIPAL  
K. Ananda Sagar College of Dental Sciences  
Kumaraswamy Layout,  
Bangalore - 560 078.  
9 MINHAZI  
Koushik



# CONSERVATIVE DENTISTRY & ENDODONTICS

## DAYANANDA SAGAR COLLEGE OF DENTAL SCIENCES

Shavige Malleswara Hills, Kumaraswamy Layout, Bangalore 560 078.

BDS 2nd Internal Assessment Examination Feb - Mar 2020 - Regular Batch 2019-2020

### Fourth BDS Student Seating List / Attendance

Class Room 1				Class Room 2			
Sl. No.	Reg No	Name of the Student	Signature	Sl. No.	Reg No	Name of the Student	Signature
1	16D1603	Aishwarya Vijay	<i>Aishwarya Vijay</i>	1	16D1632	Minu Kumari	<i>Minu</i>
2	16D1605	Aliya Kauser	<i>Aliya Kauser</i>	2	16D1633	Mobinfatima	<i>Mobinfatima</i>
3	16D1606	Allen .S. Joseph	<i>Allen S. Joseph</i>	3	16D1634	Momik Roy	<i>Momik Roy</i>
4	16D1607	Amulya .M. Gowda	<i>Amulya M. Gowda</i>	4	16D1636	Navneeth Acharya G.S.	<i>Navneeth Acharya G.S.</i>
5	16D1609	Ananthu .T. Suresh	<i>Ananthu T. Suresh</i>	5	16D1637	Niharika. R. V	<i>Niharika R. V</i>
6	16D1610	Anjali Kaushik	<i>Anjali</i>	6	16D1638	Nikita Singh	<i>Nikita</i>
7	16D1613	Arvind Patil	<i>Arvind Patil</i>	7	16D1639	Pallavi. R. Y	<i>Absent</i>
8	16D1614	Archana. I P	<i>Archana</i>	8	16D1640	Parikeerthan. Y. P	<i>Parikeerthan Y. P</i>
9	16D1615	Arshiya Kauser. A	<i>Arshiya Kauser</i>	9	16D1641	Pathipati Divya	<i>Pathipati Divya</i>
10	16D1616	Barsha Saikia	<i>Barsha</i>	10	16D1644	Rashika Tripathi	<i>Rashika</i>
11	16D1617	Daniel Bovas	<i>Daniel Bovas</i>	11	16D1645	Roopashree Nayak	<i>Roopashree Nayak</i>
12	16D1618	Elizabeth Aji	<i>Elizabeth Aji</i>	12	16D1646	Shivani. S	<i>Shivani S</i>
13	16D1619	Hemavati Roogi	<i>Hemavati Roogi</i>	13	16D1648	Shriyanshi Singh	<i>Shriyanshi Singh</i>
14	16D1620	Ishani Das	<i>Ishani Das</i>	14	16D1651	Sowmya. A	<i>Sowmya A</i>
15	16D1621	Jaya Dayanand Kamat	<i>Jaya Dayanand Kamat</i>	15	16D1652	Sumiran Sinha	<i>Sumiran Sinha</i>
16	16D1623	K. Gnana Sphurthi	<i>K. Gnana Sphurthi</i>	16	16D1654	Vijay Singh Jadoun	<i>Vijay Singh Jadoun</i>
17	16D1624	K. H. Aishwarya	<i>K. H. Aishwarya</i>	17	13D1642	Gebina Partin	<i>Absent</i>
18	16D1626	Kajol Yadav	<i>Kajol Yadav</i>	18	11D1658	Shyamalima Das	<i>Absent</i>
19	16D1627	Karma. K.P.	<i>Karma K.P.</i>				
20	16D1629	Kruthi. M. S	<i>Kruthi M. S</i>				

21 13D1650 SARSTI SUMAN

ABSENT

PRINCIPAL  
Dayananda Sagar College of Dental Sciences  
Kumaraswamy Layout,  
Bangalore - 560 078.

PRINCIPAL

Dayananda Sagar College of Dental Sciences  
Kumaraswamy Layout,  
Bangalore - 560 078.



**Dayananda Sagar College of Dental Sciences, Bengaluru**  
**Department of Prosthodontics Including Crown & Bridge**

Time: 3 hours

Max Marks: 70 Date: 03/12/2019

**BDS 1<sup>st</sup> Internal Assessment Examination Nov-Dec 2019 – Regular Batch 2019-2020**

**IV Year BDS, Subject of Prosthodontics**

Answer all questions and they should be specific. Draw neat labelled diagrams wherever necessary.

**LONG ESSAY**

**2 X 10 = 20 Marks**

1. Treatment planning in Complete Denture.
2. Define and classify Jaw Relations. Discuss the various techniques of recording horizontal jaw relation.

**SHORT ESSAY**

**8 X 5 = 40 Marks**

3. Residual ridge resorption.
4. Advantages & disadvantages of Immediate dentures.
5. Posterior palatal seal area.
6. Advantages of metallic denture base over acrylic denture base.
7. Anterior teeth selection.
8. Articulators.
9. Balanced occlusion.
10. Factors affecting retention of complete denture.

**SHORT ANSWERS**

**5 x 2 =10 Marks**

11. Neutral zone.
12. Bennet movement & Bennet shift.
13. Selective pressure technique.
14. Stress bearing areas of maxilla & mandible.
15. Types of denture teeth.

  
**PRINCIPAL**  
Dayananda Sagar College of Dental Sciences  
Kumaraswamy Layout,  
Bangalore - 560 078.

# PROSTHODONTICS

## DAYANANDA SAGAR COLLEGE OF DENTAL SCIENCES

Shavige Malleswara Hills, Kumaraswamy Layout, Bangalore 560 078.

**BDS 1st Internal Assessment Examination Nov-Dec 2019 - Regular Batch 2019-2020**

### Fourth BDS Student Seating List / Attendance

Class Room 1			Class Room 2		
Reg No	Name of the Student	Signature	Sl.No.	Name of the Student	Signature
16D1603	Aishwarya Vijay		16D1632	Minu Kumari	
16D1605	Aliya Kauser		16D1633	Mobinfatima	
16D1606	Allen .S. Joseph		16D1634	Momik Roy	
16D1607	Amulya .M. Gowda		16D1636	Navneeth Acharya G.S.	
16D1609	Ananthu .T. Suresh		16D1637	Niharika. R. V	
16D1610	Anjali Kaushik		16D1638	Nikita Singh	
16D1613	Arvind Patil		16D1639	Pallavi. R. Y	
16D1614	Archana. I P		16D1640	Parikeerthan. Y. P	
16D1615	Arshiya Kauser. A		16D1641	Pathipati Divya	
16D1616	Barsha Saikia		16D1644	Rashika Tripathi	
16D1617	Daniel Bovas		16D1645	Roopashree Nayak	
16D1618	Elizabeth Aji		16D1646	Shivani. S	
16D1619	Hemavati Roogi		16D1648	Shriyanshi Singh	ABSENT
16D1620	Ishani Das		16D1651	Sowmya. A	
16D1621	Jaya Dayanand Kamat		16D1652	Sumiran Sinha	
16D1623	K. Gnana Sphurthi		16D1654	Vijay Singh Jadoun	
16D1624	K. H. Aishwarya		13D1642	Gebina Partin	ABSENT
16D1626	Kajol Yadav		11D1658	Shyamalima Das	ABSENT
16D1627	Karma. K.P.				
16D1629	Kruthi. M. S				

**PRINCIPAL**  
 Dayananda Sagar College of Dental Sciences  
 Kumaraswamy Layout,  
 Bangalore - 560 078.

**Dayanand Sagar College of Dental Sciences, Bengaluru**  
**Department of Pediatric and Preventive Dentistry**

Time: 3 hrs

Max Marks: 70

Date-16/6/2022

**BDS 1<sup>st</sup> Internal Assessment Examination Jun 2022- Reg batch 2021-2022**  
**Final year BDS- Pediatric and Preventive Dentistry**

Answer all questions and they should be specific. Draw neat labeled diagrams wherever necessary

LONG ESSAYS:

2X10= 20 Marks

1. Classify behavior. Discuss various non-pharmacological behaviour management techniques.
2. Define normal occlusion. Describe the development of occlusion from birth to adolescence.

SHORT ESSAYS:

8x5=40 Marks

3. Social learning theory
4. Caries activity tests
5. Knutson's technique
6. Devitalisation Pulpotomy
7. Sequel of trauma for primary teeth
8. Pit and Fissure sealants
9. Infant oral health
10. Management of ECC

SHORT ANSWERS:

11. Characteristic features of an abused child
12. Drug dosage formulas for children
13. Inferior alveolar nerve block in 3-year-old child.
14. Oedipus complex
15. Window of infectivity

  
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Dayananda Sagar College of Dental Sciences  
Kumaraswamy Layout,  
Bangalore - 560 078.  
5x2=10 Marks

DAYANANDA SAGAR COLLEGE OF DENTAL SCIENCES

1st Internal Assessment Theory Examination

IV BDS 2021-2022 Regular Batch

Subject: Periodontology

Date: 16/6/2023

Sl.No.	Reg. No	Name of the Students	Signature
1	18D0073	Adanya. K.A	<i>Adanya</i>
2	18D0074	Aishwarya .B. Girepnor	
3	18D0077	Asma Firdose. I	<i>Asma firdose</i>
4	18D0080	Deepak. M. P.	<i>Deepak</i>
5	18D0081	Devashish Manibushan Pandit	<i>Devashish</i>
6	18D0084	Hosalli Akash	<i>Akash</i>
7	18D0085	Isani Inara Salim	<i>Isani</i>
8	18D0086	Kantle Preethi	<i>Kantle</i>
9	18D0087	Keerthana. J	<i>Keerthana J.</i>
10	18D0089	Meghana Prasad	<i>Meghana</i>
11	18D0090	Mili Goswami	<i>Mili</i>
12	18D0091	Monish Kumar. N	<i>Monish Kumar. N.</i>
13	18D0092	N. K. Kanishka Saini	<i>Kanishka</i>
14	18D0093	Nimra Tazain	<i>Nimra</i>
15	18D0094	Nishad Noukhiz	<i>Nishad</i>
16	18D0096	Prathibha Yallappa Karlannavar	<i>Prathibha</i>
17	18D0097	Priyanka Kolakar	<i>Priyanka</i>
18	18D0099	Roseline Dsouza	<i>Roseline</i>
19	18D0100	Sadhvi. N.C	<i>Sadhvi</i>
20	18D0101	Sejal Bhardwaj	<i>Sejal</i>
21	18D0102	Sheema Anjum	<i>Sheema</i>
22	18D0103	Shiksha Sunil Mukundappanavar	<i>Shiksha</i>
23	18D0104	Simran Naik	<i>Simran</i>
24	18D0105	Sirisha. R	<i>Sirisha</i>
25	18D0106	Sreeja Gupta	<i>Sreeja</i>

PRINCIPAL

Dayananda Sagar College of Dental Sciences  
Kumaraswamy Layout,  
Bangalore - 560 078.

Sl.No.	Reg. No	Name of the Students	Signature
26	18D0107	Srikeerthi. H	<i>Srikeerthi</i>
27	18D0109	Sukanya .I. Kashyap	<i>Sukanya</i>
28	18D0110	Susana Maharana	<i>Susana</i>
29	18D0111	Syed Majdi Mohammadi	<i>Syed Majdi</i>
30	17D1628	Meghana S Gogal	<i>Meghana S Gogal</i>
31	17D1634	Punja Samika Shankara	<i>Punja Samika Shankara</i>
32	15D1635	Saurabh Bajapai	<i>Saurabh Bajapai</i>

  
**PRINCIPAL**  
 Dayananda Sagar College of Dental Sciences  
 Kumaraswamy Layout,  
 Bangalore - 560 078.

**DAYANANDA SAGAR COLLEGE OF DENTAL SCIENCES**  
**DEPARTMENT OF PERIODONTICS**

**IV BDS Regular batch – 1<sup>ST</sup> INTERNAL ASSESSMENT – 22<sup>nd</sup> June 2022**

**TIME: 3Hrs**

**Max Marks: 70**

**LONG ESSAYS: (2x10=20 marks)**

1. Define Gingiva. Write in detail about the macroscopic features of gingiva. Add a note on dento-gingival junction.  
{2+6+2=10}
2. Classify gingival enlargement. Write in detail about etiology and pathogenesis of drug induced gingival enlargement.  
{5+5=10}

**SHORT ESSAYS: (8x5=40 marks)**

3. Classify chemical plaque control agents. Write in-detail about the mechanism of action of chlorhexidine
4. Contents of GCF
5. Specific and Non-specific and Ecological Plaque hypothesis
6. Causes of oral malodour
7. Loe and Silness gingival index
8. Treatment of dentinal hypersensitivity
9. Hypercementosis
10. Clinical features of Necrotising ulcerative gingivitis (NUG)

**SHORT ANSWERS: (5X2=10 marks)**

11. Fenestration and dehiscence
12. Write the Angulation used for scaling and curettage with diagram
13. Stages of plaque formation
14. Prevalence and incidence
15. Hydrodynamic theory

  
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Kumaraswamy Layout,  
Bangalore - 560 078.

DAYANANDA SAGAR COLLEGE OF DENTAL SCIENCES

1st Internal Assessment Theory Examination

IV BDS 2021-2022 Regular Batch

Subject:.....Periodontology.....

Date:.....22/6/22.....

Sl.No.	Reg. No	Name of the Students	Signature
1	18D0073	Adanya. K.A	<u>Adanya</u>
2	18D0074	Aishwarya .B. Girepnor	<u>Absent</u>
3	18D0077	Asma Firdose. I	<u>Asma firdose</u>
4	18D0080	Deepak. M. P.	<u>Deepak</u>
5	18D0081	Devashish Manibushan Pandit	<u>Devashish</u>
6	18D0084	Hosalli Akash	<u>Akash</u>
7	18D0085	Isani Inara Salim	<u>Isani</u>
8	18D0086	Kantle Preethi	<u>K. Preethi</u>
9	18D0087	Keerthana. J	<u>Keerthana J.</u>
10	18D0089	Meghana Prasad	<u>Meghana P.</u>
11	18D0090	Mili Goswami	<u>Mili</u>
12	18D0091	Monish Kumar. N	<u>Monish Kumar N.</u>
13	18D0092	N. K. Kanishka Saini	<u>Kanishka</u>
14	18D0093	Nimra Tazain	<u>Nimra</u>
15	18D0094	Nishad Noukhiz	<u>Nishad Noukhiz</u>
16	18D0096	Prathibha Yallappa Karlannavar	<u>Prathibha</u>
17	18D0097	Priyanka Kolakar	<u>Priyanka</u>
18	18D0099	Roseline Dsouza	<u>Roseline</u>
19	18D0100	Sadhvi. N.C	<u>Sadhvi</u>
20	18D0101	Sejal Bhardwaj	<u>Sejal</u>
21	18D0102	Sheema Anjum	<u>Sheema</u>
22	18D0103	Shiksha Sunil Mukundappanavar	<u>Shiksha SM</u>
23	18D0104	Simran Naik	<u>Simran</u>
24	18D0105	Sirisha. R	<u>Sirisha</u>
25	18D0106	Sreeja Gupta	<u>Sreeja</u>

PRINCIPAL

Dayananda Sagar College of Dental Sciences  
Kumaraswamy Layout,  
Bangalore - 560 078.

Sl. No.	Reg. No	Name of the Students	Signature
26	18D0107	Srikeerthi. H	<i>Sri H</i>
27	18D0109	Sukanya .I. Kashyap	<i>Sk</i>
28	18D0110	Susana Maharana	<i>Susana</i>
29	18D0111	Syed Majdi Mohammadi	<i>Majdi</i>
30	17D1628	Meghana S Gogal	<i>Meghana S Gogal</i>
31	17D1634	Punja Samika Shankara	<i>Samika Punja</i>
32	15D1635	Saurabh Bajapai	<i>Saurabh. B.</i>

  
**PRINCIPAL**  
 Deyananda Sagar College of Dental Sciences  
 Kumaraswamy Layout,  
 Bangalore - 560 078.



FINAL YEAR REGULAR BATCH

FIRST INTERNAL  
ORTHODONTICS

17/1/18

LONG ESSAYS:- (2x10=20)

- 1) Define growth and development. Write in detail about the prenatal growth of mandible.
- 2) What are diagnostic aids? Classify essential and supplementary diagnostic aids. Write in detail about study models.

SHORT ESSAYS:- (5x8=40)

- 3) Growth spurts
- 4) Functional matrix theory
- 5) Trajectories of force
- 6) Infantile and mature swallow
- 7) Andrew's six keys of occlusion
- 8) Ackerman and profitt classification
- 9) Mouth breathing habit
- 10) Ashley Howe analysis

SHORT ANSWERS:- (2x5=10)

- 1) Jackson's triad
- 2) Cephalocaudal gradient of growth
- 3) Broadbent phenomenon
- 4) Incisal liability
- 5) Synchronosis

  
**PRINCIPAL**  
Dayananda Sagar College of Dental Sciences  
Kumaraswamy Layout,  
Bangalore - 560 078.

DEPARTMENT OF ORTHODONTICS,  
DAYANANDA SAGAR COLLEGE OF DENTAL SCIENCES

DATE: 17.1.18

FIRST INTERNAL ASSESSMENT

MARKS - 70

ROLL NO.	NAME	SIGNATURE
14D1601	Aishwara AB	<u>Ashu</u>
14D1603	Adithi UA	<u>Adithi U.A</u>
14D1605	AISHWARYA.M	<u>Aishwarya M</u>
14D1606	Aiswarya.R	<u>Aiswarya R</u>
14D1612	Anisha	<u>Anisha</u>
14D1611	Anil Kumar.	<u>Anil Kumar</u>
14D1616	Aswathi. S.Nambiar	<u>Aswathi</u>
14D1622	J. Shrothi	<u>J. Shrothi</u>
14D1625	Krishnendu.S	<u>Krishnendu</u>
14D1631	Nishmithe D Shetty	<u>Nishmithe</u>
14D1624	Krishna Mohandas	<u>Krishna</u>
14D1619	G. Praveen Kumar	<u>G. Praveen</u>
14D1609	Alyca Maui Jencia	<u>Alyca Maui</u>
14D1608	AKSHATHA. Y.S.	<u>Akshatha</u>
14D1613	Anusha.K.V	<u>Anusha K.V</u>
14D1615	Asjodi. S	<u>Asjodi S</u>
14D1621	Haiqua Naie	<u>Haiqua Naie</u>
14D1641	Rydhani Khazim	<u>Rydhani</u>
14D1620	Gayathiri.R	<u>Gayathiri</u>
14D1635	Raveena.R	<u>Raveena</u>

PRINCIPAL  
Dayananda Sagar College of Dental Sciences  
Kumaraswamy Layout,  
Bangalore - 560 075

ROLL-NO	NAME	SIGNATURE
14D1627	MANASAGOWTHAMI D	<u>Anu</u>
14D1628	MERVIN HARRIS T	<u>Merl</u>
14D1614	ANUSHKA TYAGI	<u>Anushka</u>
14D1647	SHARANYA P	<u>Sharanya P</u>
14D1645	Shantanu kumar.	<u>Shantanu</u>
14D1644	SERA MARIYAM JINNY	<u>Salfaryam</u>
14D1642	SANKET SACHIDANAND NAYAK	<u>Sanket</u>
14D1646	Shantipriya P	<u>Shanti</u>
14D1640	Rupshikha S	<u>Rupshikha</u>
14D1637	Reshma S	<u>Reshma</u>
14D1639	Rujula J	<u>Rujula</u>
14D1630	Nischal C.B.	<u>Nischal</u>
14D1638	Rose Maria P.R	<u>Rosemaria</u>
14D1607.	AUTSU PRANAV.	<u>Autsu</u>
14D1604	Adithyan. P.B	<u>Adithyan</u>
14D1636	Renuka Choudhary	<u>Renuka</u>
14D1648	Shree Ramya R	<u>Shree Ramya R</u>
14D1643	Satyam Kashyap	<u>Satyam</u>

Department of ORTHODONTICS

DAYANANDA SAGAR COLLEGE OF DENTAL SCIENCES

DATE FIRST INTERNAL ASSESSMENT

ROLL NO	NAME	SIGNATURE
14D1649	Siddhant Venugopal	Siddhant
14D1650	SITHAR CHOZOM LATIA	Sithar
14D1651	Sneha Pk	Sneha
14D1652	Spandana	Spandana
14D1654	Sreelakshmi	Sreelakshmi
14D1655	Srikan	Srikan
14D1639	Sagan Doye	Sagan
1001612	Enmad Ali	Enmad Ali
09D1651	S.M. Muneef	S.M. Muneef
14D1629	Nelisa Narayanan	Nelisa
14D1626	Lakshmi Madhusoodanar	Lakshmi
14D1657	Vaibhavi R	R. Vaibhavi
14D1658	Varun Nair	Varun
14D1656	Teena Marian Thomas	Teena

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 Kumaraswamy Layout,  
 Bangalore - 560 078.

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3437

Kumaraswamy Layout, BENGALURU - 560 078.

## FIRST / SECOND / THIRD INTERNAL ASSESSMENT EXAMINATION

Name: VASUNITA S Reg. No. 49

Class: 1<sup>st</sup> BDS Subject: Dental Anatomy Date: 11/07/2022

Dental histology

### SECTION

#### LONG ESSAY

1. Permanent maxillary right central incisor.

#### Introduction:

- There are 4 maxillary incisors.
- Central incisors are two in number.
- They lie on either side of the mesial line.
- The central incisor to the right side of the mesial line is the right maxillary central incisor.
- It touches left maxillary central incisor mesially and right lateral incisor distally.

#### Nomenclature

- 'Permanent' refers to the fact that it is a part of the permanent dentition / secondary dentition.
- 'Maxillary' refers to it being in the maxillary alveolar socket. (upper tooth)
- 'Central' refers to its location at the centre of dental arch.
- 'Incisor' refers to its shape, size and function.

#### Chronology

- First evidence of calcification - 3 to 4 months.
- enamel formation - 4 to 5 years
- eruption - 7 to 8 years.
- Root completion - 9 to 10 years.

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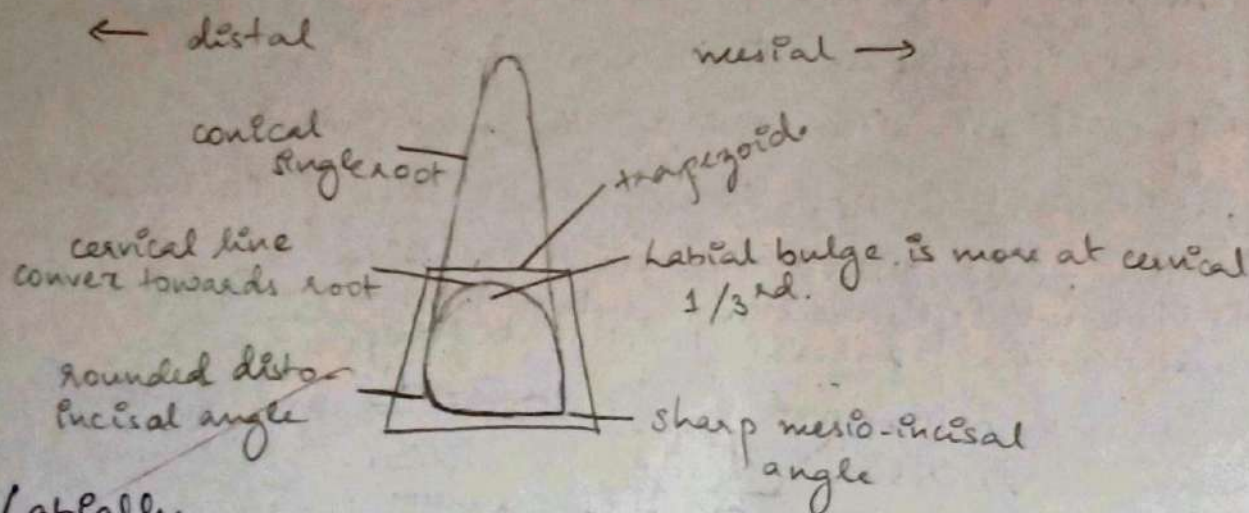
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## Measurements

crown length 10.5 mm	root length 13 mm	mesiodistal length 8.5 mm	mesiodistal length (at cervix) 7.0 mm
labio/bucco-lingual length 7.0 mm	labio/bucco-lingual length (at cervix) 6.0 mm	curvature of cervical line (mesial) 3.5 mm	cervical line (distal) 2.5 mm

## Aspects

### \* Labial aspect

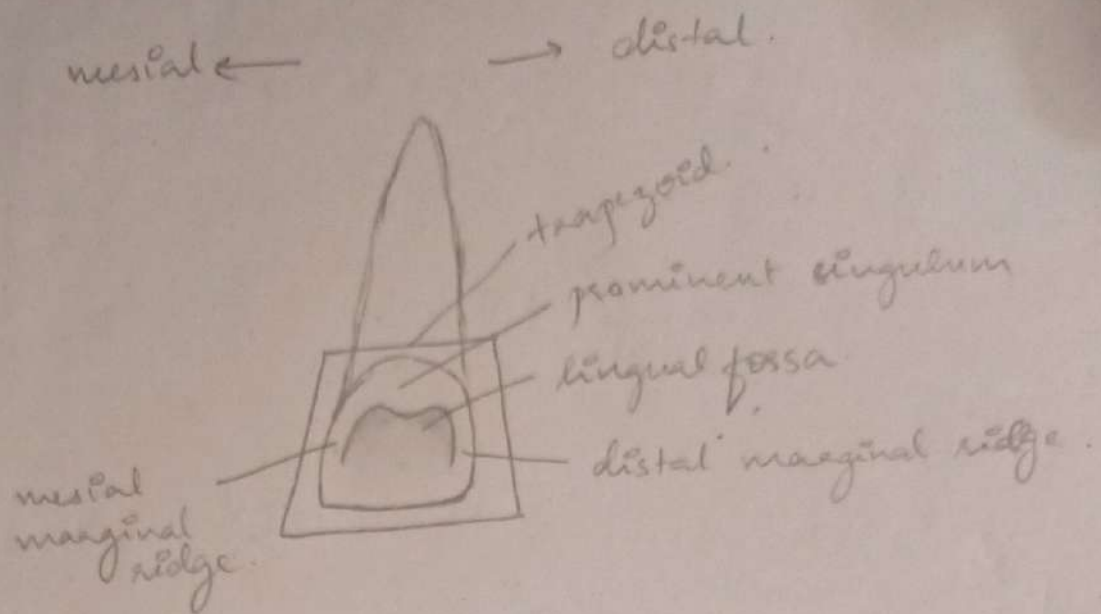


Labially,

- the mesio-incisal angle is sharp when compared to the disto-incisal angle.
- disto-incisal angle is rounded.
- The cervical is convex towards the root.
- The labial bulge is more at the cervical one-third of the crown.
- Root is single and conical.
- Root surfaces are smooth and straight.

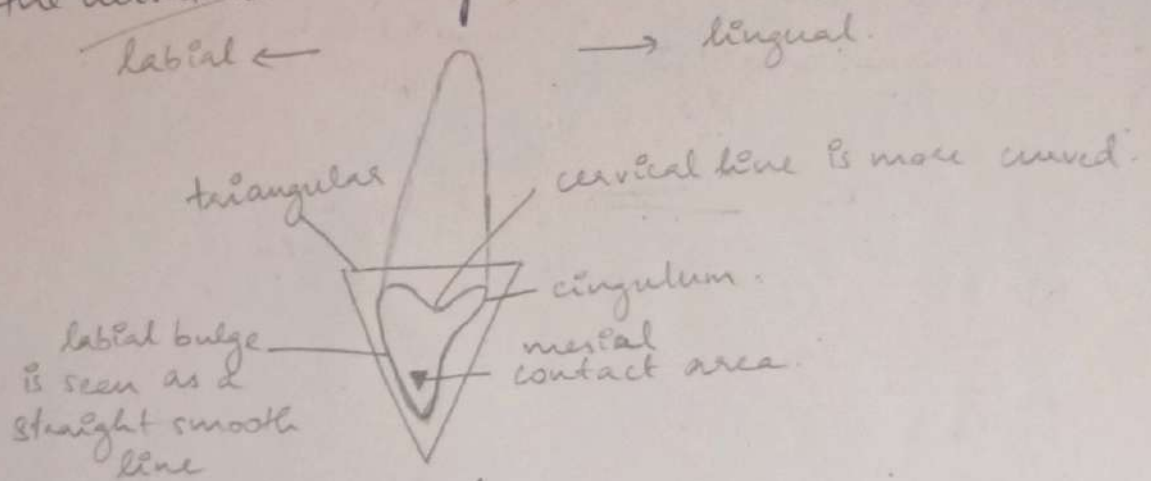
### \* Lingual aspect

- A prominent cingulum is seen at the cervical one-third.
- A deep W-shaped fossa is seen.
- Prominent mesial and distal marginal ridges are seen.



\* Mesial aspect.

- The mesial aspect is wedge-shaped.
- cervical line curvature is more mesially than the curvature distally.

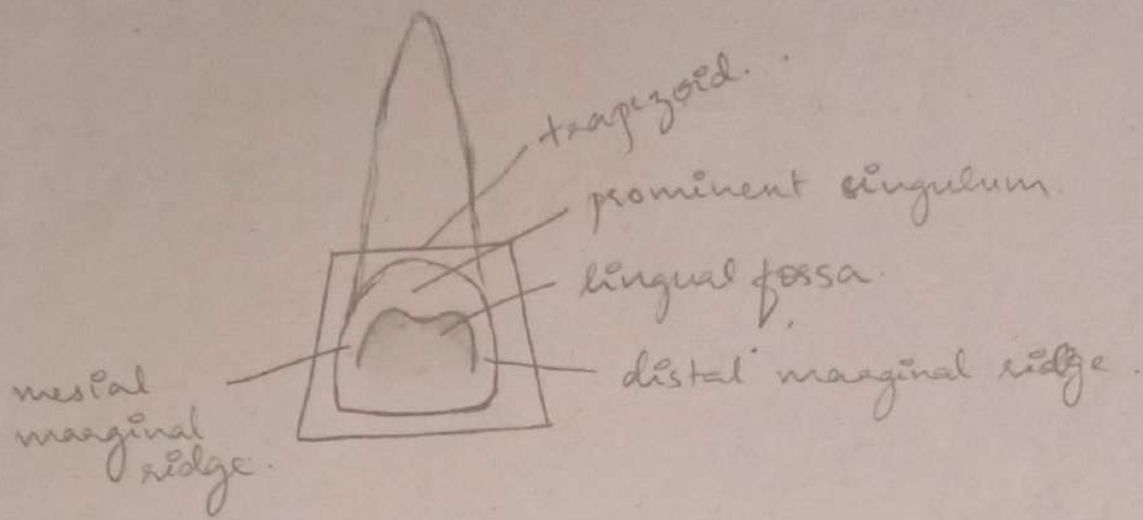


- It is triangular in shape
- The cingulum from the lingual aspect and labial bulge can be viewed.
- mesial contact area is at the middle one third of the crown.
- convexity of cervical line towards the crown.

\* Distal aspect

- Distal aspect is slightly different from the mesial aspect.
- Incisal ridge appears thicker due to the rounded disto-incisal angle.
- It is wedge-shaped as well.

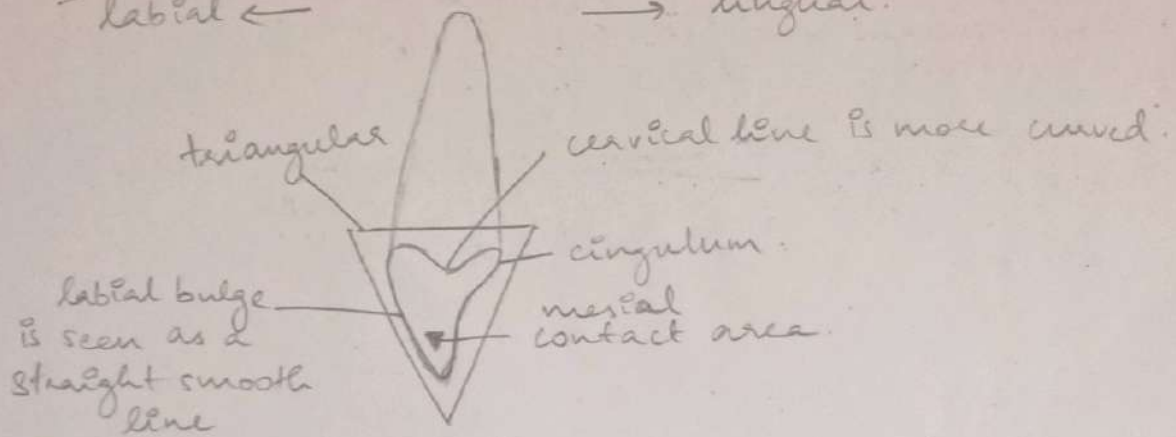
mesial ← → distal.



\* Mesial aspect.

- The mesial aspect is wedge-shaped.
- cervical line curvature is more mesially than the curvature distally.

labial ← → lingual.

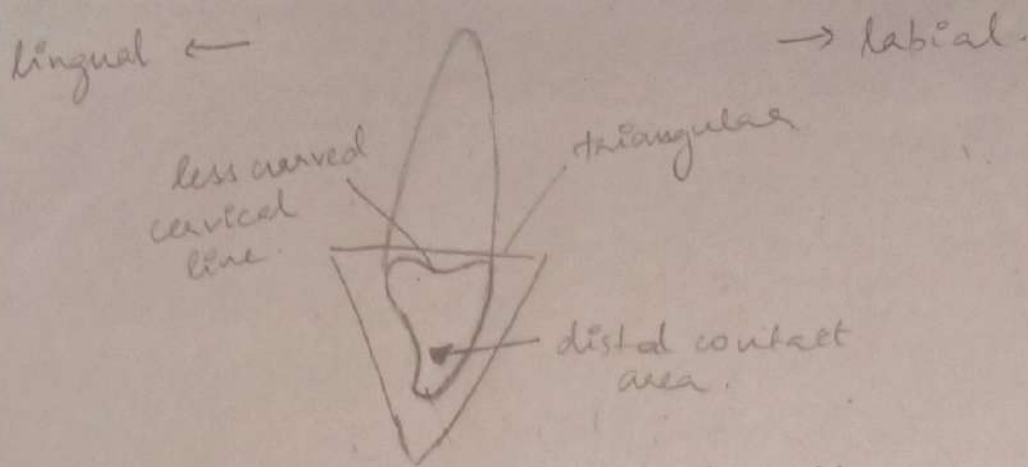


- It is triangular in shape
- The cingulum from the lingual aspect and labial bulge can be viewed.
- mesial contact area is at the middle one third of the crown.
- convexity of cervical line towards the crown.

\* Distal aspect.

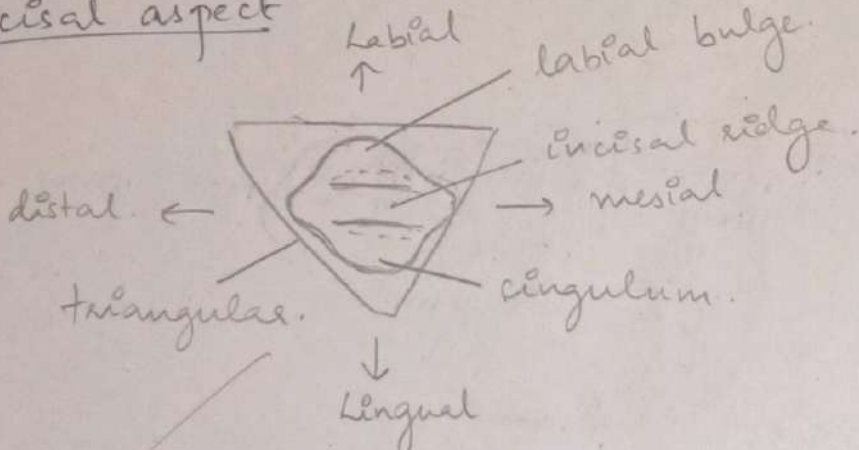
- Distal aspect is slightly different from the mesial aspect.
- Incisal ridge appears thicker due to the rounded disto-incisal angle.
- It is wedge-shaped as well.





- #> cervical line is less curved distally.
- #> distal contact area at the middle  $\frac{1}{3}$ <sup>rd</sup> of the crown.
- #> convexity of ~~the~~ cervical line towards the crown.
- #> midline through the root divides the incisal ridge which means incisal <sup>(tip of crown)</sup> end is in line with the tip of root.

Incisal aspect



- #> Incisally, the incisal ridge, cingulum from the lingual aspect and the labial bulge can be viewed.
- #> It is triangular in shape.

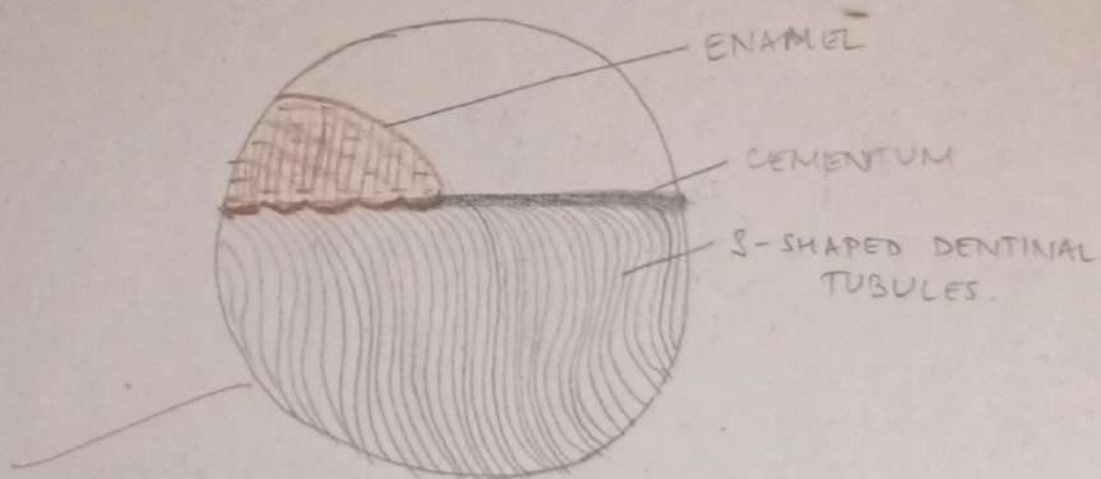
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## 2. Structures of Dentin

- Dentin is a structure slightly harder than enamel or as hard as bone.
- It is less harder than enamel.
- It consists of collagen fibres.
- It has multiple structures as mentioned below -

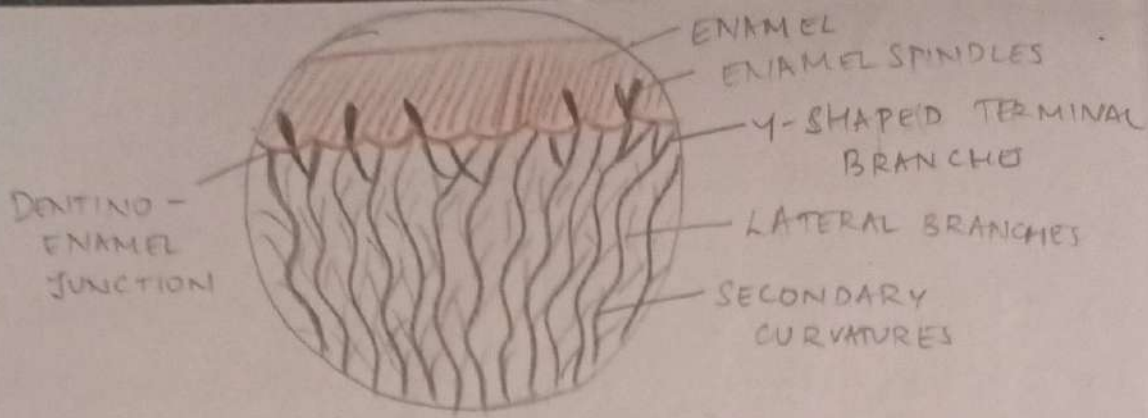
### ① S-shaped dentinal tubules -

- These tubules have two curvatures starting from pulpal end, first convexity towards the root and second one towards the crown.
- They have dark lines of cross striations and brownish bands called striae of Retzius.
- They are having secondary curvatures as well.



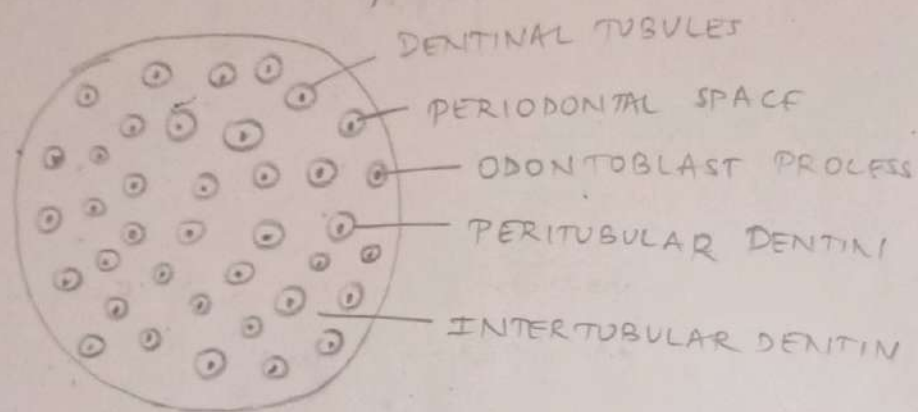
### ② Y-shaped terminal branches.

- At the dentino-enamel junction, the dentinal tubules split and terminate and are therefore Y-shaped.
- They have secondary curvatures.
- They also have lateral branches that help in communication with adjacent tubules or may end abruptly in intertubular dentin.



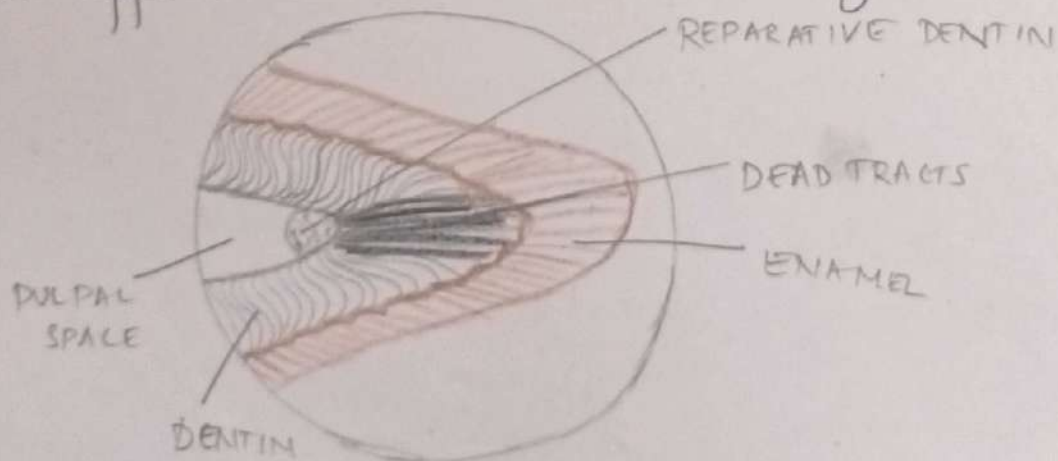
### ③ Transverse section of Dentinal tubules

- It appears as ~~circle~~ circles with dots in between
- This represents the odontoblast process with peritubular dentin surrounding it.
- It has periodontal space
- Intertubular dentin is present between the tubules.

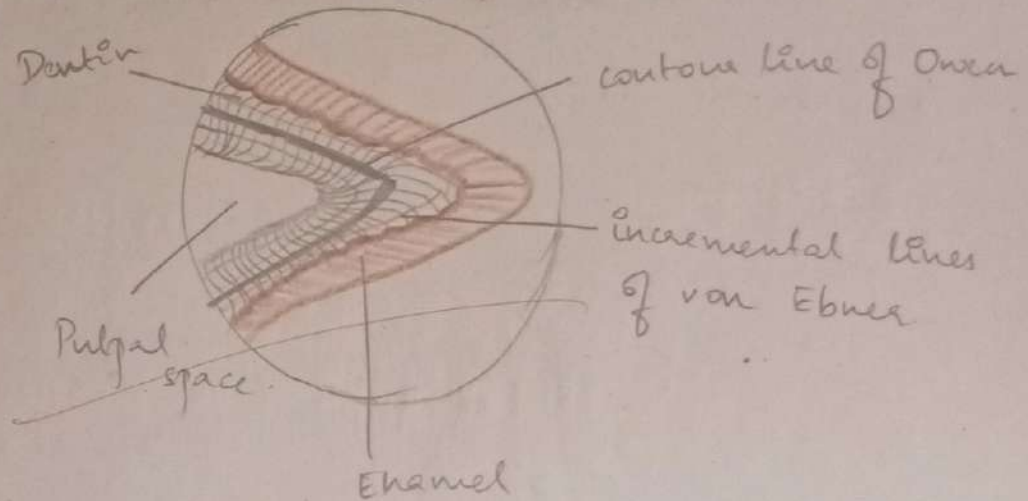


### ④ Dent Dead tracts.

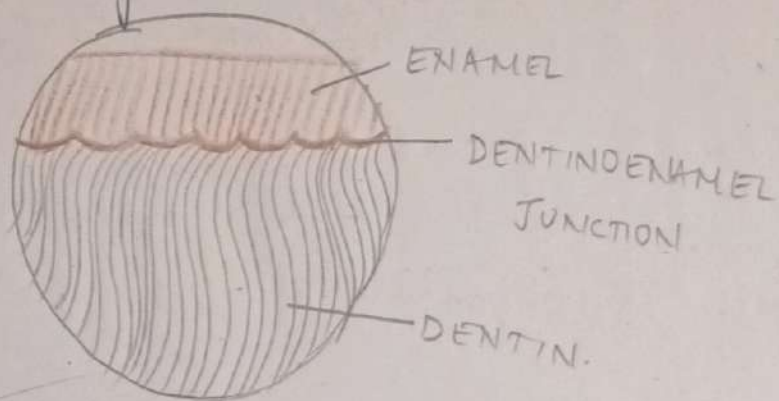
- Empty dentinal tubules form dead tracts.
- The odontoblast process has disintegrated and that space is filled with air.
- This appears dark in transmitted light.



- ⑤ Incremental lines of dentin.
- #> The presence of incremental lines of von Ebner can be seen.
  - #> These lines indicate periodic deposition of dentin.
  - #> Accentuated incremental lines of von Ebner are called contour lines of Owen.



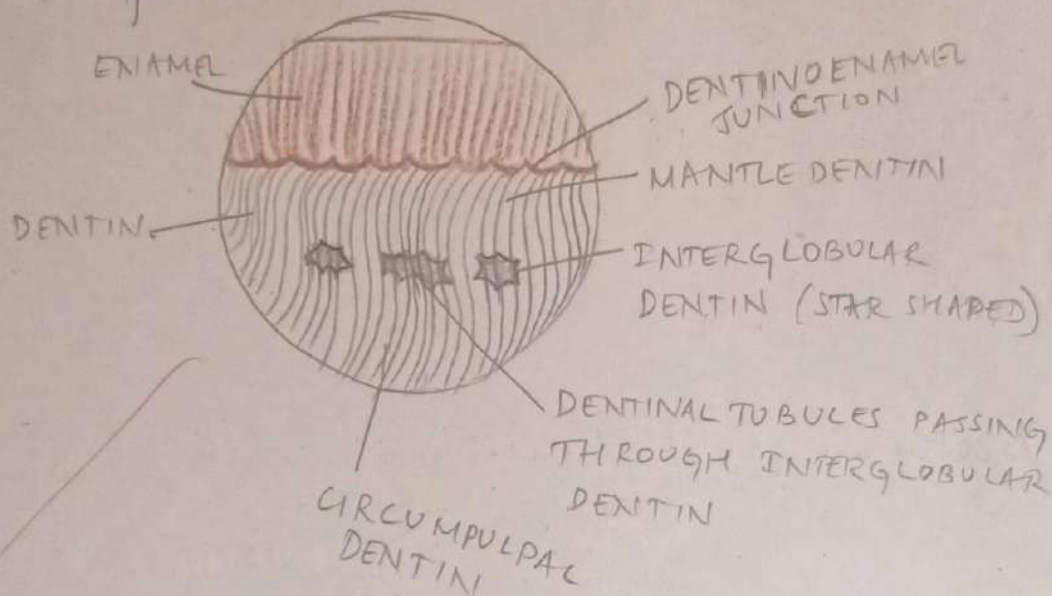
⑥ Dentino-enamel junction.



- #> The Dentinoenamel junction has convexities facing dentin.
- #> Multiple hypocalcified structures like enamel spindles, enamel tufts, etc arise from here.
- #> enamel rods and dentinal tubules arise from this junction.

## ⑦ Interglobular dentin.

- ↳ These are star shaped
- ↳ With their corners projecting on all sides.
- ↳ Dentinal tubules pass through them, thus proving it is a defect in maturation and not matrix deposition.



- ↳ These are found below the dentinoenamel junction, in the ~~mantle~~ mantle dentin, above the circumpulpal dentin.

①

SHORT ESSAY.

3. Tooth numbering system.

(a) Zimondy / Palmer.

EDCBA	ABCDE
EDCBA	ABCDE

87654321	12345678
87654321	12345678

This system was accepted but later rejected as this wasn't computer friendly and couldn't be typed.

(b) Universal system

<del>1234</del>	A B C D E	F G H I J
	T S R Q P	O N M L K

1 2 3 4 5 6 7 8	9 10 11 12 13 14 15 16
32 31 30 29 28 27 26 25	24 23 22 21 20 19 18 17

This system was rejected as it led to confusions and was not efficient.

3/2

(c) FDI system

55 54 53 52 51	61 62 63 64 65
85 84 83 82 81	71 72 73 74 75

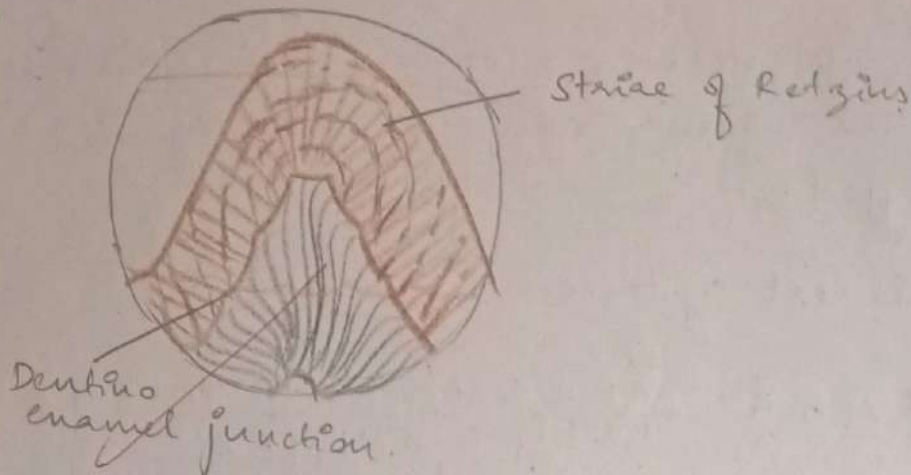
<del>16 15 14 13 12 11</del>	<del>21</del>
18 17 16 15 14 13 12 11	21 22 23 24 25 26 27 28
48 47 46 45 44 43 42 41	31 32 33 34 35 36 37 38

This system is most accepted and convenient. The first number represents the quadrant and the second number represents the tooth.

4. Hypocalcified structures of enamel include the following.

i) Striae of Retzius

- These incremental lines are brownish bands.
- They are hypocalcified and mineralised.
- They are concentric rings at the incisal or cuspal edge and oblique lines on the rest of the enamel.

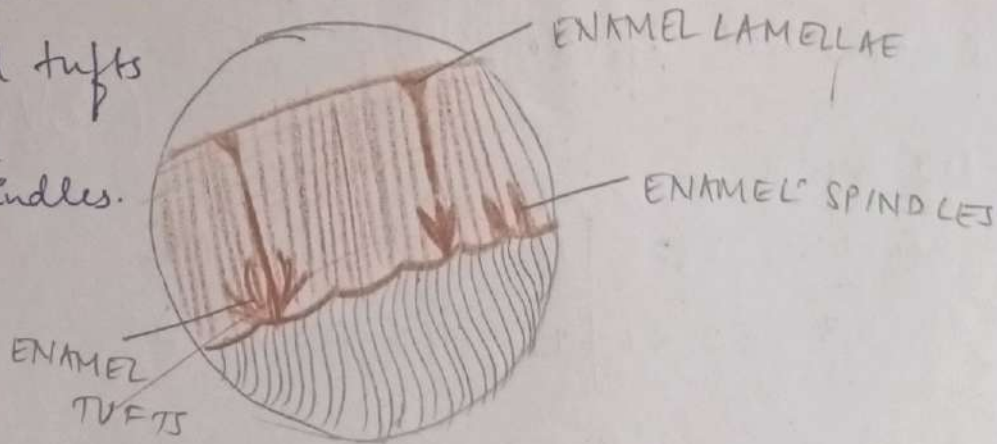


- They arise from DEJ (Dentino-enamel junction) and go outwards towards the periphery of enamel.

ii) Enamel lamellae.

iii) Enamel tufts

iv) Enamel spindles.



- Enamel Lamellae are aggregates of enamel rods that arise from periphery of enamel.

→ There are three types -

Type A - poorly calcified enamel rods and are restricted to enamel.

Type B - disintegrated cells that may extend into dentin

Type C - derived from salivary proteins and may extend into dentin.

- Enamel tufts appear like tufts of grass and arise from dentino enamel junction.
- Enamel spindles are extensions of dentin that enter the enamel. (3/2)

5. Physiological stages of tooth development

→ This includes 5 stages -

- Initiation
- Proliferation
- Morphodifferentiation
- Histodifferentiation
- Apposition.

(3/2)

→ Initiation involves the genes involved in tooth development to initiate the process.

→ Homeobox genes like ~~at~~ Dlx-2, Bax-2, etc contribute to tooth development.

→ Proliferation is the stage where the inner enamel epithelium proliferates and differentiates to form ameloblast.

→ Inner enamel epithelium exerts an organising influence on dental papilla to form odontoblast.

→ Morphodifferentiation is the change in shape.

→ In this stage, there is change from bud stage → cap stage → bell stage → advanced bell stage.

→ Histodifferentiation refers to the changes in cell structures.



→ The inner enamel epithelium cells differentiate to form ameloblasts (tall columnar cells)

→ Cells of dental papilla differentiate to form odontoblast under the organising influence of inner enamel epithelium in bell stage.

→ Apposition is formation of enamel and dentin (hard tissues)

6. There are 3 theories of dentin hypersensitivity -

(i) Neural transmission theory -

→ This theory states that pain is transmitted through the neural control.

→ This theory is not accepted because when anaesthesia is given, according to this theory pain should still be felt.

(ii) Hydrodynamic theory -

(3)

→ This theory states that pain is transmitted through fluid movement

→ This is the most accepted theory.

→ When there is drying or high heat or very cold temperatures, fluid movement is observed.

(iii) Transduction theory -

→ This theory states that there are no neurotransmitter vesicles and is hence not accepted.

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## FIRST / SECOND / THIRD INTERNAL ASSESSMENT EXAMINATION

Name: NASUNITA'S Reg. No. ....

Class: ..... Subject: ..... Date: .....

### SECTION

#### 7. Primary dentition.

#### Permanent dentition.

- Teeth are smaller in size.
- Enamel is thicker.
- Dental formula:  
$$\frac{I\ 2}{2} \quad \frac{C\ 1}{1} \quad \frac{M\ 2}{2} = 10$$
- Total number = 20
- Age is from around 6 months to 11 to 12 years
- Lasts for around 12 years
- First evidence of calcification is in the utero.
- Orientation of crown is straight.

- Teeth are larger in size.
- Enamel is thinner.
- Dental formula:  
$$\frac{I\ 2}{2} \quad \frac{C\ 1}{1} \quad \frac{P\ 2}{2} \quad \frac{M\ 3}{3} = 16$$
- Total number = 32
- Age is from around 6 months to 6 years till old age.
- Last for 60 years.
- First evidence of calcification after birth.
- Orientation may not be straight.

(11)

## 8. Maxillary canine

- ↳ crown is shorter
- ↳ crown is wider mesio-distally.
- ↳ root is shorter
- ↳ cingulum is more prominent
- ↳ cuspal tip is more pronounced

2<sup>1</sup>/<sub>2</sub>

## Mandibular canine

- ↳ crown is slightly longer.
- ↳ crown is narrower mesio-distally.
- ↳ root is few mm longer.
- ↳ cingulum is less prominent.
- ↳ cuspal tip is less pronounced.

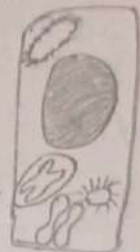
## 9. Life cycle of ameloblast

6 stages -

- #> Morphogenic stage.
- #> Organising stage.
- #> ~~Maturation (Mineralizing)~~
- #> Formative stage.
- #> Maturation (Mineralizing stage)
- #> Protective stage.
- #> Desmolytic stage.

### i) Morphogenic stages.

- cells are small and columnar. (short)
- nucleus is large almost covering entire cell.
- Golgi apparatus, centrioles and mitochondria move towards the proximal end.



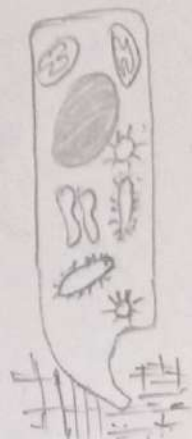
### ii) Organising stage.

- cells become taller
- polarity is reversed where organelles move towards the distal end.
- Rough endoplasmic reticulum increases
- Basal lamina disintegrates
- nutritional supply changes



### iii) Formative stage.

- a blunt extension is extended into the basal lamina from the ameloblast at the distal end
- cell reduces in length.



#### (iv) Maturation stage

→ Microvilli are generated at the distal end.

→ Tomes process is formed by the ameloblast moving away from dentin.

→ Tomes process produces granules at the junction

#### (v) Protective stage.

→ REE - Reduced enamel epithelium is formed as the stellate reticulum collapses (advanced bell stage)

→ The inner enamel epithelium and outer enamel epithelium merge to form REE.

#### (vi) Desmolytic stage.

→ REE is going to cause atrophy of the desmosomes and therefore the nutritional supply is cut.

#### 10. Root development.

→ The cervical loop from advanced bell stage elongates and forms HERS

→ HERS - Hertwig's Epithelial Root sheath.

→ HERS is composed of cuboidal cells of outer enamel epithelium and tall columnar cells of inner enamel epithelium.

→ HERS ~~dec~~ determines the shape, size and number of root according to the particular tooth.

→ Remnants of HERS is called "cell rests of Mallassez".

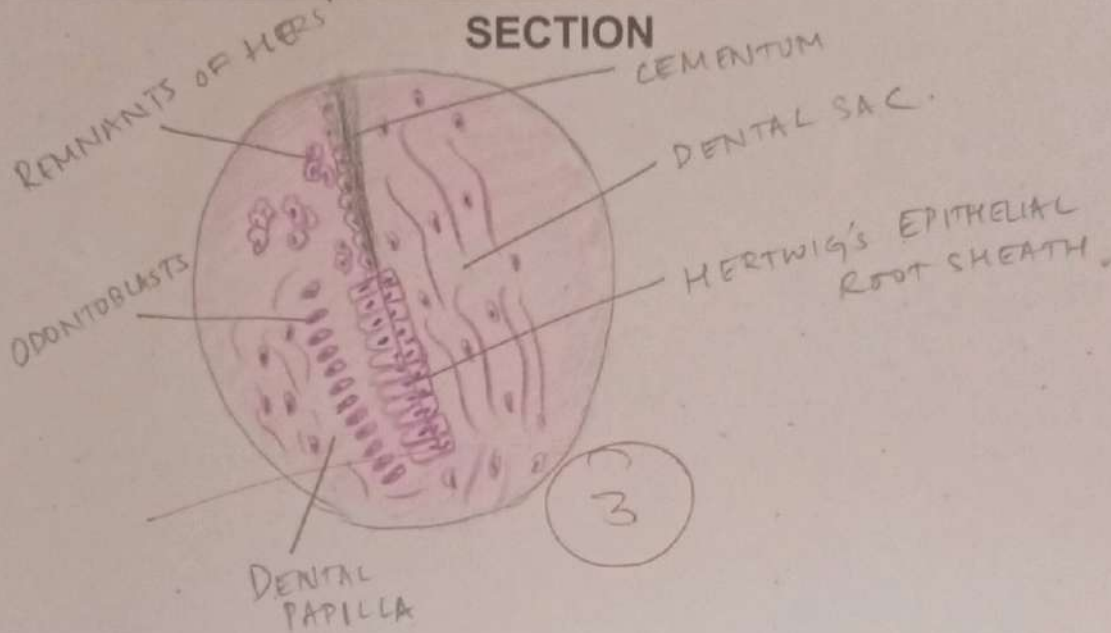
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## FIRST / SECOND / THIRD INTERNAL ASSESSMENT EXAMINATION

Name: VASUNITA S Reg. No. ....

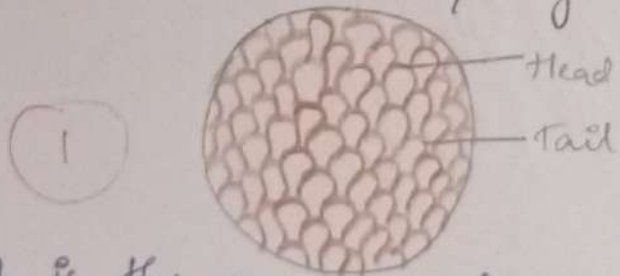
Class: ..... Subject: ..... Date: .....



### VERY SHORT ANSWERS

11. Ultra structure of Dentin enamel.

→ This shows fish scale / key hole appearance.



→ Head is the enamel rod

→ Tail is intra enamel.

12. Osteodentin.

- osteo - bone.

### 13. Reciprocal induction

4) Epithelium and mesenchyme interact during the beginning of tooth development - ectomesenchymal interaction. (9)

eg: dentin forms before enamel.

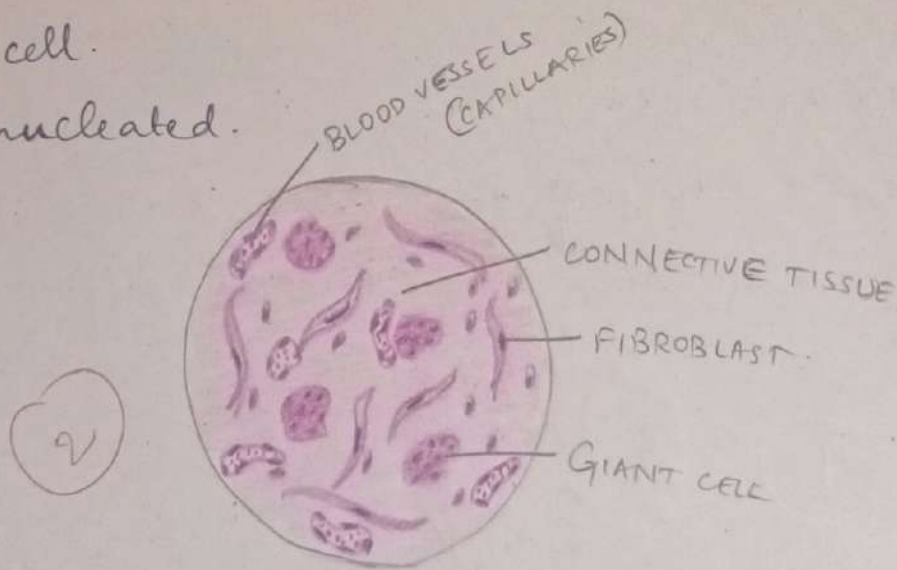
4) During tooth development, changes in shape (morpho-differentiation) is followed by histodifferentiation.

### 14. Oblique ridge.

4) This refers to the ridges found on the crown of a tooth where it follows a straight line across the crown.

### 15. Giant cell.

4) multinucleated.



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## FIRST / SECOND / THIRD INTERNAL ASSESSMENT EXAMINATION

Name: NIHARIKA . J Reg. No. 30

Class: IBOS Subject: PHYSIOLOGY Date: 6/9/22

### SECTION

26/35 *Niharika seen*

### SHORT ANSWERS

5 Functions of kidney :-

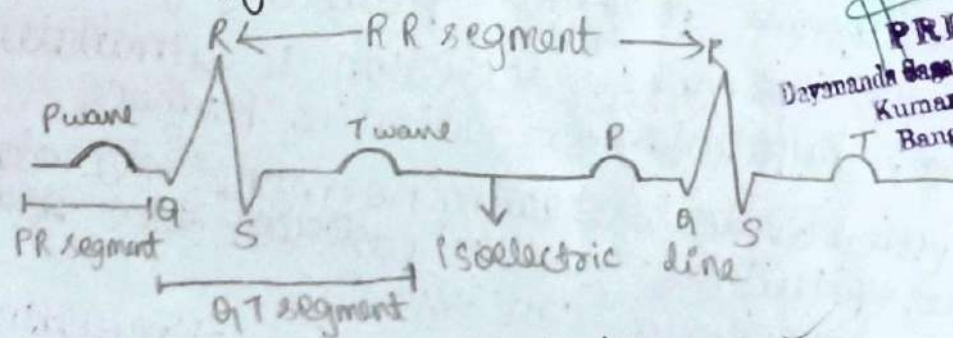
- o kidney helps in erythropoiesis by secreting renal erythropoietin that stimulates erythropoietin sensitive precursors of erythrocyte.
- o They help in getting rid of nitrogenous waste like urea and perform excretory function.
- o Kidneys contains nephrons which helps in purification of blood and to get rid of metabolic waste products from blood.
- o Kidneys help in water reabsorption and maintain water-electrolyte balance of body by absorbing sodium and water from filtrate.
- o Kidneys helps in ~~urine~~ urine production.
- o They help in ~~maintaining~~ maintaining homeostatic condition of body by maintaining water-electrolyte balance.

1 1/2

6 4 methods of contraception - abstinence, condoms, tubectomy, vasectomy, diaphragm, spermicide, cervical cap, vaults, oral contraceptive

2

7 waves of ECG :-



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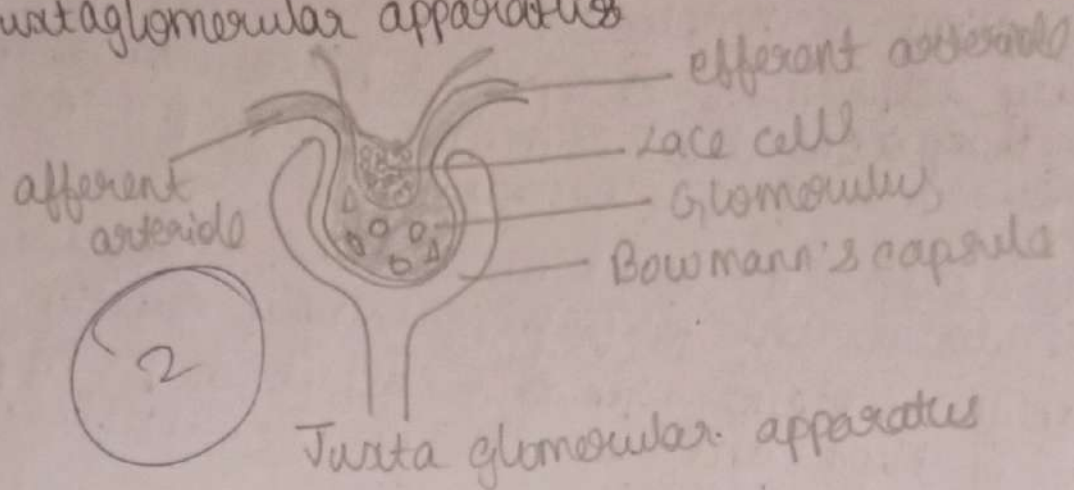
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- 1) P wave - atrial depolarisation
- 2) QRS complex - ventricular depolarisation
- 3) T wave - ventricular repolarisation
- 4) a wave - septal depolarisation



~~R wave~~  
 R wave - Ventricular depolarisation  
 S wave - ventricle base depolarisation  
 ST segment - Complete depolarisation of ventricle  
 T wave - Ventricle repolarisation

8 The Jacc cells, afferent arteriole, juxtaglomerular apparatus  
 - Jomerular cells and macula densa cells forms  
 Juxtaglomerular apparatus



- 9 Features of Cushing's syndrome
- o Increased gluconeogenesis and decreased protein
  - o Thin skin and hair
  - o Buffalo hump, purple striae on abdomen
  - o Accumulation of fat in abdomen
  - o Moon face
- 2

### SHORT ESSAY

- 2
- o Growth hormone is a polypeptide hormone secreted from ~~posterior~~ anterior pituitary gland.
  - o Growth hormone secretion is stimulated by ~~the~~ hypothalamus 'releasing' hormone.
  - o Hypothalamus 'releasing' hormone secreted reaches pituitary gland's posterior lobe through superior hypophysial artery.
  - o Continues as long portal vein stimulating posterior pituitary gland to secrete growth hormone into blood.

## → Factors affecting and effect of GH hormone

↑ fat uptake  
↑ Glycogenesis

stimulating hormone  
from hypothalamus  
~~↑ GH~~ ↑ Erythropoietin  
Stress

IGF-I  
Somatostatin  
GH itself

Growth

Metabolic activity:-

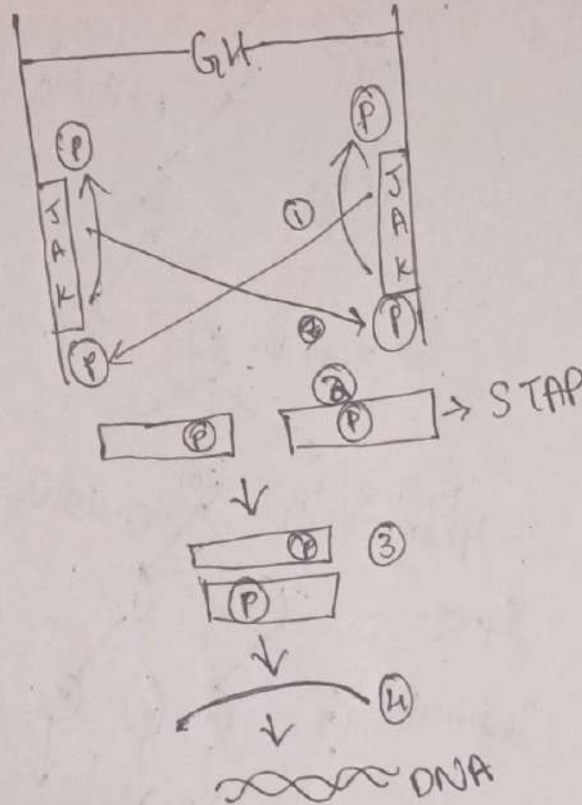
↑ lipolysis  
↓ glucose uptake  
by skeletal muscle  
and fat cells

Hormone  
↓  
↑ milk production  
↑ erythropoiesis  
↑ ECF volume

Growth changes:-

↑ cell production  
↑ bone growth  
↑ cartilage growth  
↑ protein synthesis

## → Regulation of growth hormone



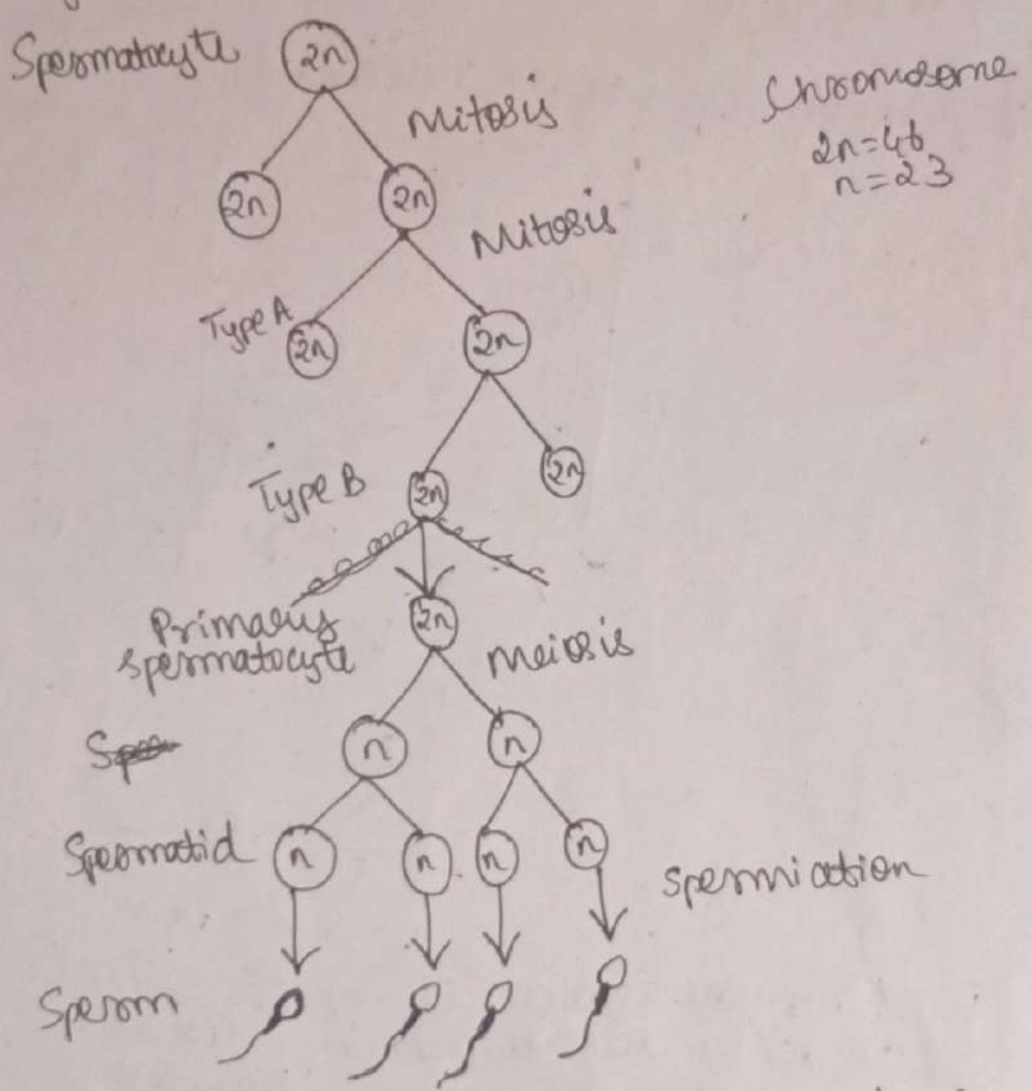
32

- ① - Phosphorylation of tyrosine kinase when GH attaches to receptor by JAK kinase
  - ② - Activated JAK causes phosphorylation of STAP
  - ③ - STAP dimerase formation
  - ④ - Synthesis of DNA for function of target organ
- Transcription → mRNA production to carry out function on gland.

- Clinical - i) Dwarfism - hyposecretion of growth hormone  
 ii) Gigantism - hypersecretion of growth hormone  
 iii) Acromegaly.

3 Spermatogenesis - The process of production of sperm from testes is called spermatogenesis.

o It begins at puberty in seminiferous tubules



- o Spermatocyte undergoes mitosis to produce two types of Type A for cell renewal and Type B to produce sperm.
- o Type B cells forms <sup>primary</sup> spermatocyte which undergoes meiosis to spermatid with 23 number of chromosome.
- o Spermatids undergo differentiation to form sperm.

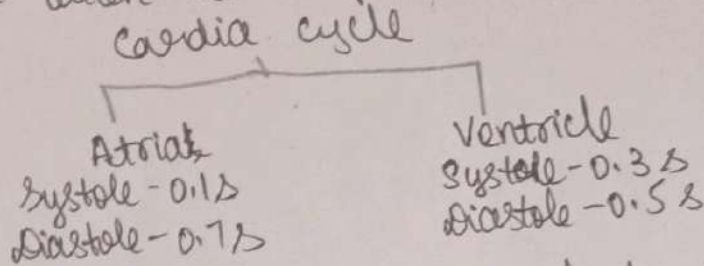
- Sertoli cells provide nutrition to developing sperm
- 4 sperms are formed from one spermatocyte at the end of spermatogenesis.
- Testosterone helps in spermatogenesis secreted by Leydig cells.

(4/3)

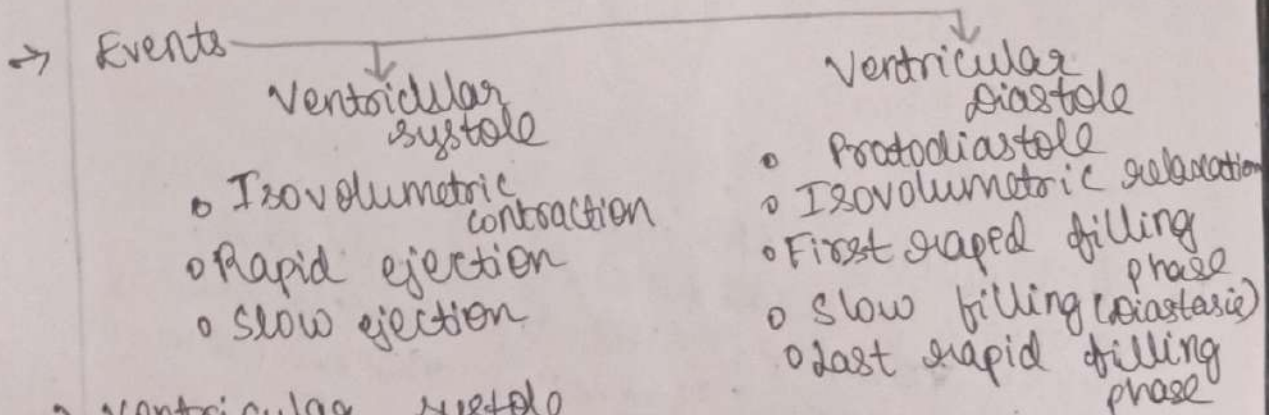
## LONG ESSAY

The electrochemical and mechanical events occurring in a <sup>continuous</sup> cyclic, rhythmic fashion between two successive heart beats is called as cardiac cycle.

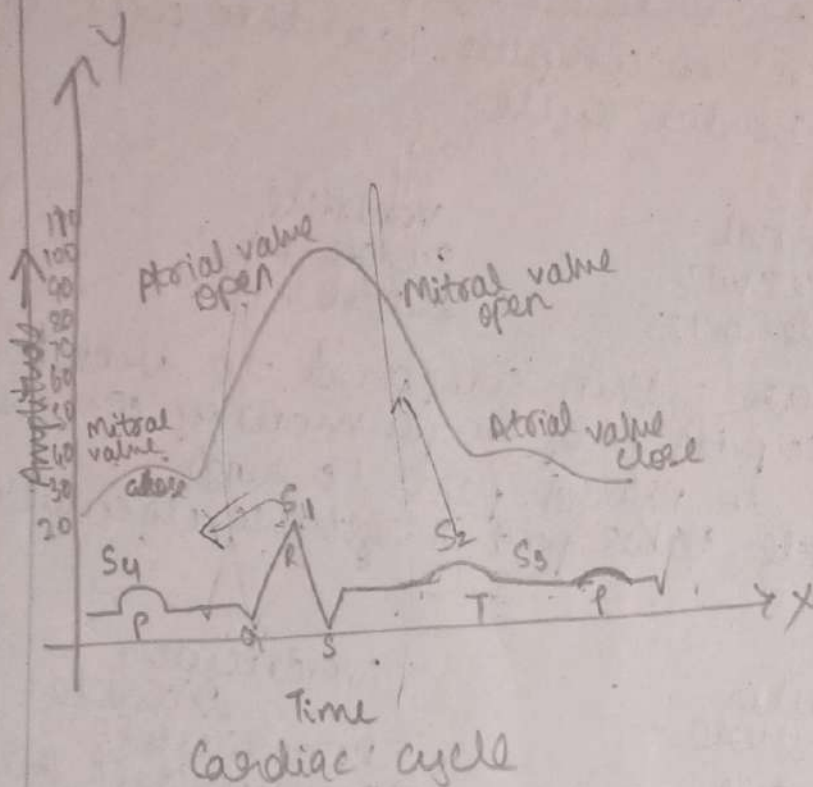
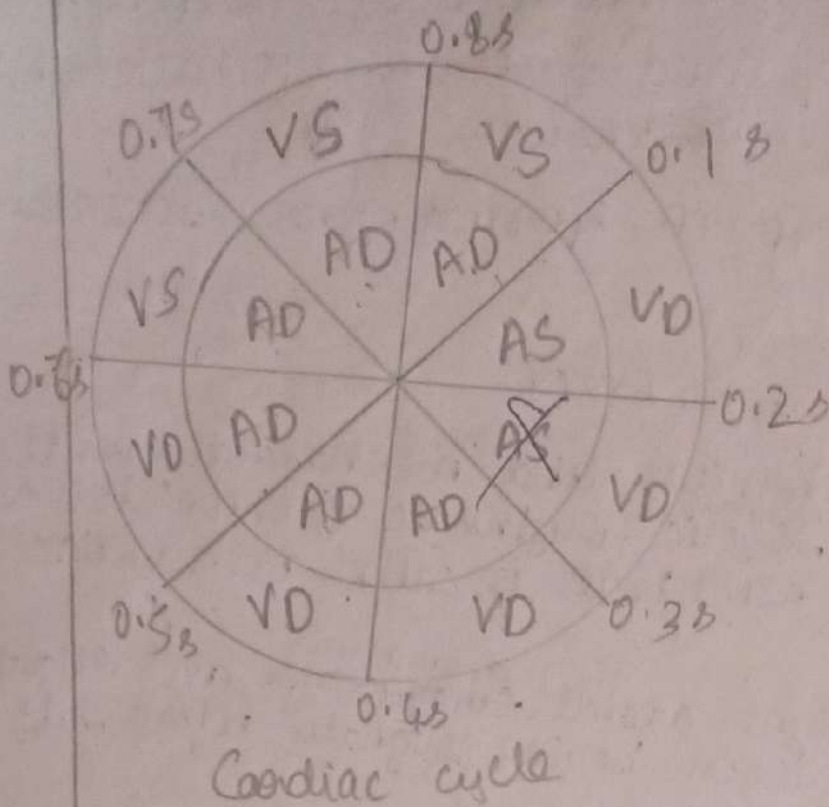
- ~~Atrial contraction~~ Right atrial <sup>relaxation</sup> ~~contraction~~ and slight ventricular contraction begins slightly before left.
- ~~Total time taken Cardiac cycle~~
- Total time taken to complete 1 cardiac cycle - 0.8 s



- Atrial walls are thin compared to ventricle as they participate only in pulmonary circulation to pump blood to nearest parts (lung). Whereas ventricle takes part in systemic circulation.



- i) Ventricular systole
- a) Isovolumetric contraction -> Atrioventricular valves are closed.
  - Ventricle contract in the closed chamber
  - Volume of blood inside ventricle doesn't change.
  - Pressure inside ventricle increases.



- b) Rapid ejection - As the pressure of right ventricle exceeds pressure of pulmonary artery (10 mm Hg) and left ventricle exceeds aorta's pressure (80 mm Hg) the mitral valve opens.
- o Blood is ejected from ventricles into aorta and pulmonary artery respectively.
  - o This occurs rapidly due to high pressure

e) Slow ejection - The pressure of ventricles decrease but still some amount of blood flows slowly into aorta and pulmonary artery.  
o Until pressure drops in ventricle.

## 2 Ventricular diastole

a) Protodiastole - The blood from ventricles flows into respective vessels (pulmonary artery and aorta) due to momentum just before closing of mitral valves.

b) Isovolumetric relaxation - o Mitral valves closes and ventricles relax in closed chamber.  
o Pressure inside ventricle is 0 mmHg.  
o Volume of ventricle doesn't change.

c) Rapid First rapid filling phase - o The atrio-ventricular valves opens and blood from right and left atria flows into respective ventricles.  
o Blood flows rapidly as atrio-ventricular pressure difference is high.  
o Passive filling of ventricle.

d) Slow filling / Diastasis - o Atrio-ventricular pressure drops and hence slow filling of blood occurs.

e) Last rapid filling phase - o Coincides with atrial diastole.  
o Atria contracts to squeeze blood into ventricle.  
o Active filling phase of ventricle.

## → Heart sounds

o S<sub>1</sub> and S<sub>2</sub> are normally heard.  
o S<sub>1</sub> is high-pitched sound.

1) S<sub>1</sub> is heard when atrio-ventricular valves closes.  
o Heard during R wave.

2) S<sub>2</sub> is heard when mitral valves closes.  
o Heard during later half of T wave.

3) S<sub>3</sub> is produced ~~when~~ during first rapid filling phase.  
o seen between TP segment.

$S_4$  is produced during late & rapid filling phase.  
Seen ~~in~~ after later half of Presure.

- Clinical
- If  $S_4$  is heard then it indicates ischemia or improper heart functioning.
  - Atrial fibrillation
  -

### SHORT ESSAY

#### 4 Female menstrual cycle

- Female menstrual cycle begins at menarche.
- 1st stage - development and enlargement of breast, growth of ~~the~~ axial and pubic hair.

II<sup>nd</sup> stage - menarche, ovulation occurs

III<sup>rd</sup> stage - menopause → complete stoppage of menstrual cycle.

- Menstrual cycle occurs in primates
- In female primary oocyte are produced prenatally. ~~from~~ by mitosis
- During birth they are embedded in wall of ovary.

10  
2

When the girl reaches puberty due to hormonal action rupture of ~~ovary~~ primary oocyte occurs which starts menarche.

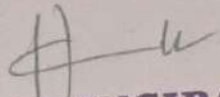
- 1-5 days → Menstrual cycle occurs  
6<sup>th</sup>-12<sup>th</sup> day → estrogen and progesterone helps in rebuilding of endometrium wall of uterus.

13<sup>th</sup> or 14<sup>th</sup> day → LH surge inducing ovulation and maintains corpus luteum forms graffian follicle.

16<sup>th</sup> to 28<sup>th</sup> day → graffian follicle ruptures and corpus luteum is maintained by progesterone which later degenerates if

not fertilised into corpus albicans.  
o Ovarum if not fertilised degenerate and again  
menstrual cycle continues.

o ~~67A~~



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Bangalore - 560 078.



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Kumaraswamy Layout, BENGALURU - 560 078.

2799

## FIRST / SECOND / THIRD INTERNAL ASSESSMENT EXAMINATION

Name: Priyanka A Jadhav Reg. No. 33

Class: I<sup>st</sup> BDS Subject: Biochemistry Date: \_\_\_\_\_

### SECTION

#### Short answers

5) Saponification number: mg of KOH required to saponify 1g of fats and oils

→ It tells about the size of the unsaturated fatty acids

6) Essential amino acids

→ Amino acids which cannot be synthesised by our body and taken (or) supplied to the body through diet is known as essential amino acids.

ex: Histidine, Valine, Isoleucine, Threonine, Tryptophan, Leucine, Lysine, Methionine, Proline.

2) m-RNA

→ It is the messenger m-RNA

→ It is synthesised in nucleus in the form of hnRNA

→ It is involved in protein synthesis

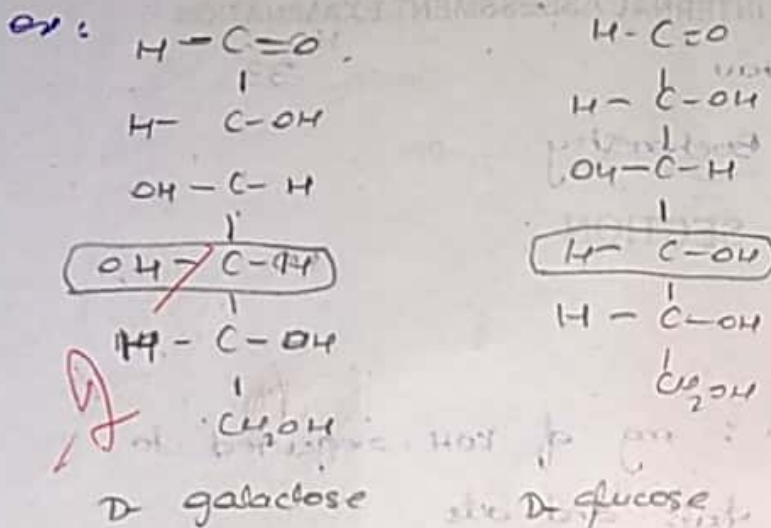
→ It has large molecular weight with less half life.

→ 5' prime is capped by 7-methyl adenosine triphosphate

→ 3' is tailed by adenosine residue

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8) Epimers: Two monosaccharides which differ at single carbon atom are known as epimers.



→ they both differ at 4<sup>th</sup> carbon

9) Plasma proteins:

- These proteins are involved in osmolarity & defence mechanism
- plasma proteins are about 6-8 g/dL
- Albumin & globulin are plasma proteins
- Albumin: - 3.5-5.5 g/dL      globulin: 2.5-3 g/dL
- Albumin maintains osmotic condition

### Short Essay

2) phospholipids

→ Lipids containing esters of fatty acid, alcohol and phosphoric acid & nitrogen bases known as phospholipids

→ Types

(\*) Glycerophospholipids

→ contains glycerol as alcohol  
or Lecithin

## (11) Sphingophospholipids

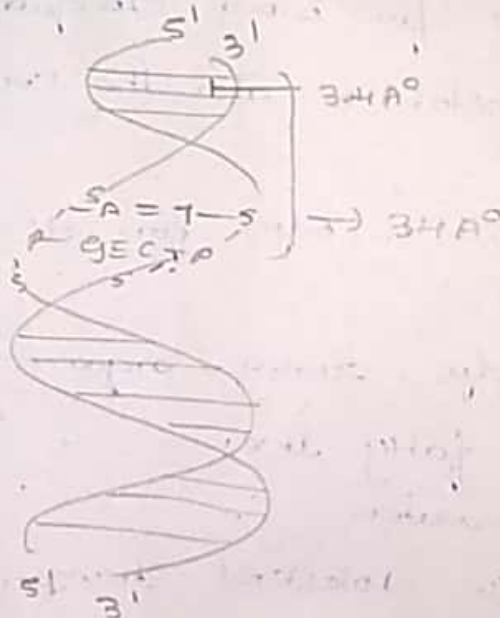
- TISS lipids contains sphingosine as the alcohol
- ex: Sphingomyelin

## Functions of Phospholipids

- These are the major component of cell membrane
- Phosphatidic acid helps in the intermediate for formation phospholipids & glycerol
- Lecithin is the component of cell membrane
- Cephalin helps for blood coagulation
- Phosphatidyl serine is also the component of cell membrane
- Phosphatidyl serine is helps for cell death known as apoptosis
- Cardiolipids helps during organ transplantation
- These prevents fatty liver
- Helps in transportation
- Helps in reverse cholesterol transport mechanism
- Helps in synthesis of lipoproteins
- Helps in absorption of fats from the intestine

### B) Structure of DNA.

- DNA is the deoxyribonucleotide
- It contains the chains in the antiparallel manner
- monomers are linked by phosphodiester bonds
- phosphate group acts as the backbone of DNA helix
- Structure of DNA is  $\alpha$ -helical molecule
- It is formed by Sanger & recobson



- Adenine Purines and pyrimidines are joined by hydrogen bonds
- Between A & T two double bonds are present.
- Between G & C three double bonds are present.
- Pitch of the helix is  $34^\circ$ .
- The distance between two base pairs is  $3.4 \text{ \AA}$
- Each turn contains 10 basepairs.

→ It obeys chargeoffs rule i.e amount of AET is equal to the amount of E&C.

→ It is ladder shaped structure contains antiparallel chains with 3' & 5' reactivity.

#### 4) Disaccharides

→ Carbohydrates containing two sugar units or two monosaccharides are known as disaccharides

→ These are types of oligosaccharides

→ Disaccharides based on reducing property again classified into 2 types

(i) Reducing sugar: Sugars which contain free reducing end is known as reducing sugar.

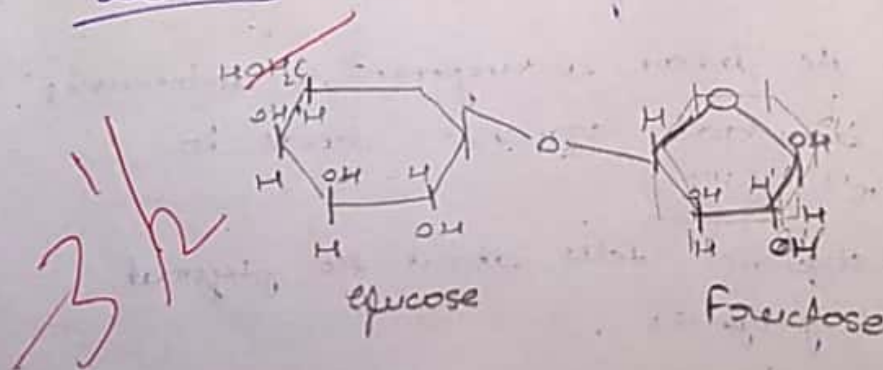
ex: maltose & lactose

(ii) Non-reducing sugar: Sugars which do not contain free reducing end is known as non-reducing sugar

ex: Sucrose

#### Example

##### Sucrose



→ Sucrose is the cane sugar

→ It contains two monosaccharides they are glucose & fructose

## Long Essay

1) Protein is the organic substance found abundantly in living organisms.

### Functions

- They act as carriers proteins in facilitated transport.
- They act as enzymes

### Structures of Proteins

- (i) Primary structure
- (ii) Secondary structure
- (iii) Tertiary structure
- (iv) Quaternary structure

### Primary structure of Protein

- It includes the amino acids.
- It tells about its function
- It contains the linear arrangement of amino acids
- Defect in amino acid sequence leads to the disorders.
- Amino acid sequence tells about the physical & chemical properties

### Peptide bond

- It is the bond formed between two amino acids
- It acts as cementing material between two

amino acids.

## Formation of Peptide bond

→ Peptide bond is formed by  $\text{NH}_2$  group of one amino acid and carbon linked with carbonyl group of another amino acid.

→ Dipeptide bond doesn't mean that presence of two bond. It means it consists of 2 amino acids.

## Structure of Peptide bond

- It is rigid & planar
- It is polar
- It contains trans configuration
- It contains partial double bonds
- Peptide bond is neutral but peptides are charged

## Writing of Peptide bond

- It contains N terminal on left side & 'C' terminal on right side
- Always, peptide bonds are read from N terminal to C terminal i.e. from left to right.

## Standard writing of peptide bond

- Amino acids are written by three letters

## Naming of Peptide bond

- Amino acids contains suffixes like -yl, -ine, -ate.

## Determination of Primary Structure

- It is determined by digesting protein solution
- It contains 3 stages

### (1) Determination of amino acid composition

- Proteins undergo hydrolysis by alkali (or) acid enzyme to liberate amino acids
- Pepsinase is the enzyme used for complete hydrolysis

### Protein Estimation of amino acids

- Amino acids are estimated by chromatographic techniques.

### (2) Degradation of Amino acids into fragments

- Before degradation polypeptides should be separated.

### Estimation of Polypeptides

- When proteins treated with urea it cleaves the polypeptide chains
- Treating with performic acid cleaves the sulphide linkage

### Number of polypeptides

- Number of peptides estimated by treating with dansyl chloride

### Degradation of polypeptides into fragments

- It involves two steps



(i) Enzymatic cleavage

→ Trypsin is used for this cleavage

(ii) Chemical cleavage

→ Cyanogen bromide helps for chemical cleavage  
(CNBr)

(iii) Determination of amino acid sequence

→ Fragments of polypeptides determined by  
determines the amino acid sequence

→ Sangers & Edmann's reagents are used for  
determination of amino acid sequence

→ Sequenator

of it is the automatic machine which determines  
the amino acid sequence

H V

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Kumarnaswamy Layout,  
Bangalore - 560 078.

Name: Honey Roll no- 11 Reg. No. ....

Class: IBDS Subject: Anatomy Date: 18/8/21

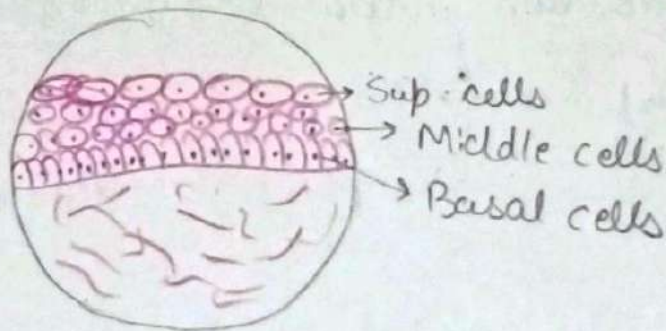
SECTION

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III. Short Answer Questions

9) Urothelium / Transitional Epithelium

- Transitional epi is multilayered of 4-6 cells thick and can expand and contract as needed.
- It is called transitional because it transition b/w st. squamous and st. columnar cells.
- In this basal cells are columnar, central cells are polyhedral and upper cells are large & umbrella shaped.
- It is called urothelium because it lines most of the urinary system (urinary bladder, tract etc.)

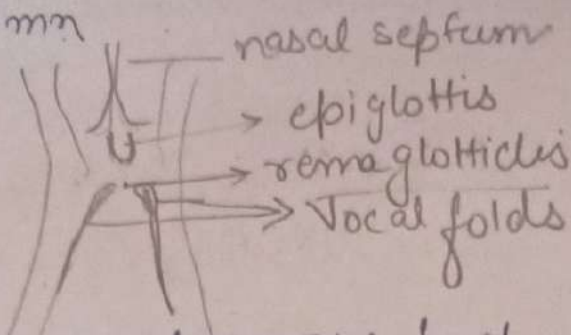


10) Remaglottidis

- It is the space b/w vocal folds.
- It is the narrowest constriction of larynx.
- It is covered by muscle of larynx.
- When air passes through it, sound is produced.

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- In males - 23mm  
females - 17mm



- Ant. 3/5 → intermembranous part  
Post. 1/5 → intercartilagenous part

## 11) Hyoglossus Muscle

- It is the extrinsic muscle of tongue.  
→ Origin - Greater cornua & lat. 1/3 of hyoid bone

Insertion - Side of tongue

Action - Makes dorsum convex, retracts the protruded tongue, depresses the tongue.

Nerve Supply - Hypoglossal nerve.

- Fibers run forward & backward.  
→ Relations:  
→ Deep. - ~~Stylo~~ Genioglossus  
→ Superficial - Styloglossus, Lingual nerve.

## 12) Submandibular Salivatory Ganglion

- It is the parasympathetic peripheral ganglion.  
→ It is relay station for secretomotor fibers from submandibular and sublingual salivary gland.  
→ ~~It has~~ Topographically, it's related to lingual nerve but functionally related to chorda tympani branch of facial nerve.

- It has 3 types of fibers:—
  - i) ~~Splanchnic~~ Sensory fibres
  - ii) Secretomotor fibers.
  - iii) Sympathetic fibers.

### 13. Cervical sinus

- During dev. of pharyngeal arch, 2<sup>nd</sup> pharyngeal arch grows faster than 3<sup>rd</sup>, 4<sup>th</sup>, 6<sup>th</sup> pharyngeal arch.
- Usually, 2<sup>nd</sup> pharyngeal arch overlaps & fuses with 3<sup>rd</sup>, 4<sup>th</sup> & 6<sup>th</sup> pharyngeal arch.
- But some times, it doesn't fuse with them & a gap is created.
- Gap created b/w them is known as cervical sinus.
- Cells are present in gap known as cervical cyst.

### Applied anatomy

- Cervical fistula → When cervical cyst is removed, it comm. to pharynx.
- Sinus is present at level of angle of mandible and is common in children below 10 yrs.

### 14. Thyrohyoid membrane

- It is the extrinsic ligament of larynx.
- Its lat. & med. wall thickens to form lat. & med. thyrohyoid ligament.

## 15) Jugular Space

→ Investing layer of deep fascia splits into two and covers 2 space:-

i) Jugular space

ii) Supra clavicular space.

→ Jugular space is also known as carotid space.

→ It extends from skull base to aortic arch.

→ It is lined by carotid sheath.

→ Contents:-

i) Int. Carotid artery

ii) Common Carotid artery

iii) Int. Jugular vein

iv) Amsa cervicalis

v) Vagus nerve.

→ Boundaries:-

i) Suprahyoid carotid space

ii) Infrahyoid carotid space.

## 16) Vertebral Artery

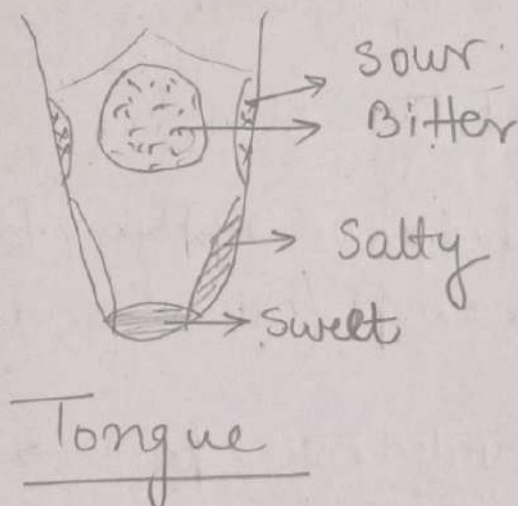
→ It is one among the 2 principal arteries that supplies to the brain.

→ It passes through the transverse foramen of vertebrae.

- It is divided into 4 parts:-  
1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> - are in neck.  
4<sup>th</sup> - runs in foramen magnum and supplies to sub-arachnoid space.
- It runs a long course and also supplies to meninges, spinal cord etc.

## 17 Taste Bud

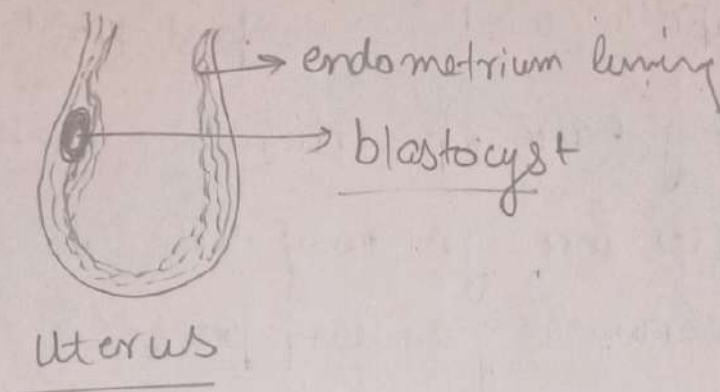
- Taste buds are special sensory nerve ending.
- It is present b/w circumvalate & fungiform papillae and also in post. 1/3<sup>rd</sup> of tongue.
- They have sp. columnar epithelial cells.
- Cells are gustatory cells and have openings known as gustatory pores.
- When these cells become old, they become supporting cells.



## 18. Implantation

- It is the process of attachment of blastocyst to endometrial lining of uterus and subsequent invagination in the lining.
- It takes place b/w 6-12 days after fertilisation.
- It is of 3 types:—

- i) Central implantation
- ii) Eccentric implantation
- iii) Interstitial implantation



## II. Short Essay Questions:—

### 3) Recurrent laryngeal nerve

- It is the nerve supplying to all intrinsic muscle of larynx except (cricothyroid muscle)
- It is divided into 2 parts → Left rec. laryngeal nerve  
↳ Right rec. laryngeal nerve.

→ Right rec. laryngeal nerve arises from vagus nerve and in front of right subclavian artery



It runs forward and medially & passes behind subclavian artery and ~~inf. carotid~~ <sup>int.</sup> carotid artery to enter tracheoesophageal groove.



In upper part of this groove, it's related to inf. thyro artery.

later it passes deep and is related to int. constrictor and enter larynx through cricothyroid joint

→ Left rec. laryngeal nerve arises from vagus nerve in thorax



It loops around ligamentum arteriosum and enters tracheoesophageal groove.



It doesn't have to run behind subclavian artery & int. carotid artery to enter this groove.

#### 4) Maxillary Air Sinus

→ It is a paranasal air sinus.

→ It is present in body of maxilla.

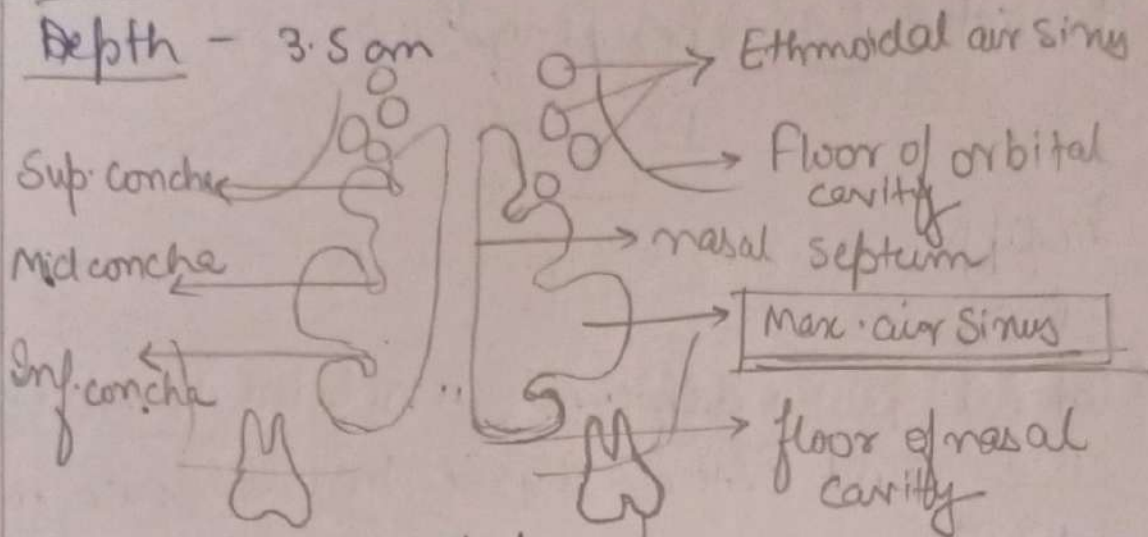


- It is the first paramasal air sinus to develop.
- It changes shape of face.
- Measurement :-

Length - 3.5 cm

Width - 2.5 cm

Depth - 3.5 cm



- Nerve - Infra orbital nerve → molar "
- Artery - Infra orbital artery
- Boundaries

i) Ant. → Ant. part of body of maxilla

ii) Post. → Post. part of body of maxilla

iii) Laterally → Zygomatic process.

iv) Medially → An opening called max. hiatus (antrium)

v) Roof → Floor of orbital cavity

vi) Floor → Alveolar sockets

- Applied anatomy :-

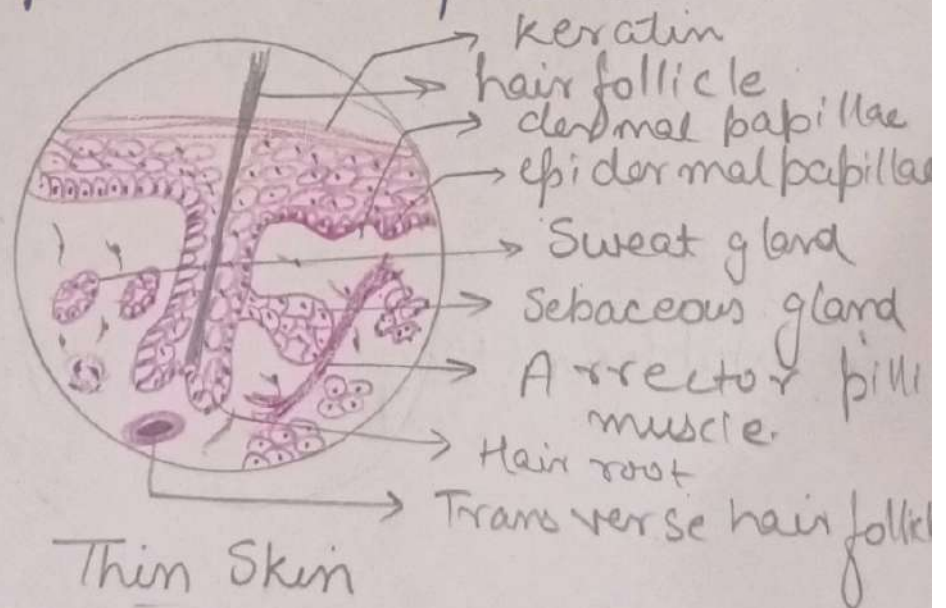
i) Pus in max. sinus known as max. sinusitis  
Now a days, its removed from antrium.

## 5. Histology of Thin & Thick Skin

→ Skin is the largest organ of our body which covers 15-20% of total body mass.

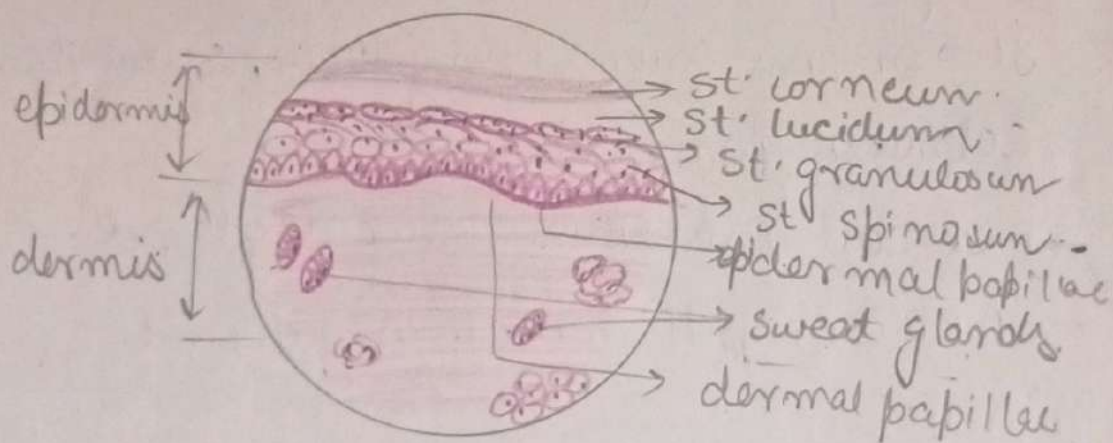
### → Thin Skin

- It is also known as hairy skin.
- It covers most of our body except (palm, sole)
- In this, epidermis is thin (4 layers are there) (St. lucidum is absent)
- In this, dermis is thick which helps in suture easily if damaged.
- It contains hair, hair follicles, sweat gland, sebaceous gland.
- It contains more sweat gland.
- Arrector pili muscle is present.



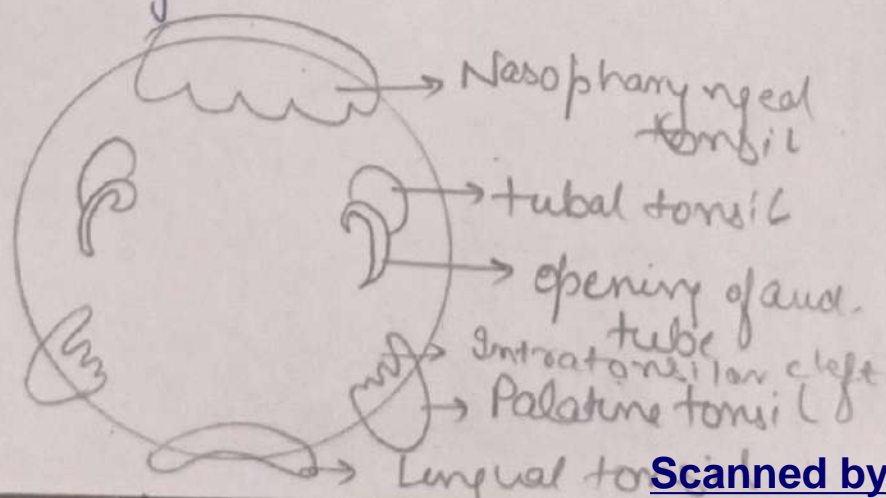
## → Thick Skin

- It is the non-hairy skin
- It is present in areas of abrasion (fingertips, palm, sole) et.
- It doesn't contain hair, hair follicle, sebaceous gland.
- sweat glands are very less.
- Arrector pili muscle is ~~very~~ absent.
- Dermis is thin & epidermis is thick (st. corneum is thick).



Thick Skin

## 6. Waldeyer's Ring



→ It is circle of lymph nodes / lymphatic circle present at inlet of oropharynx.

→ Boundaries:-

i) Superiorly → Pharyngeal tonsil

ii) Sup. laterally → Tubal tonsil

iii) Laterally → Palatine tonsil

iv) Inferiorly → Lingual tonsil

→ It kills the germs / bacteria present in food before entering oesophagus.

## 7) Papillae

→ Tongue is the soft, muscular organ present in the floor of oral cavity.

→ Tongue contains papillae which are ~~the~~ projection of mucous membrane present on the dorsum of the tongue.

→ There are 4 types of papillae:-

### i) Circumvalate papillae

- Largest papillae

- 8-12 in no.

- 1-2mm in diameter

- present in front of sulcus terminalis

- taste buds are present on its wall which is circular.

ii) Fungiform papillae

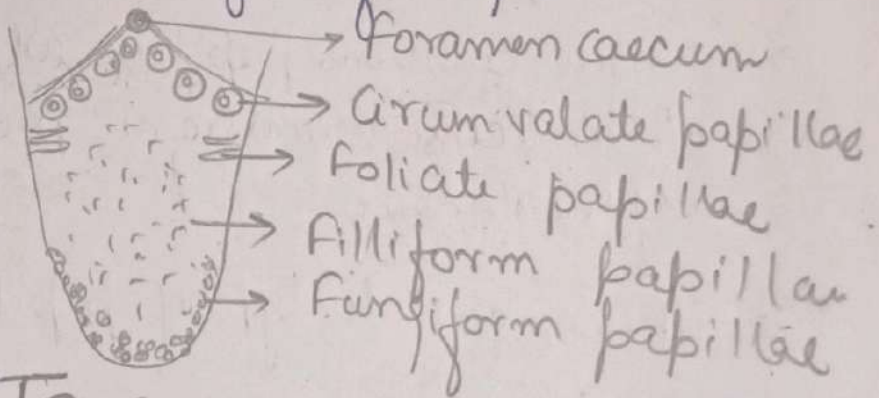
- Smaller than circumvalate papillae but larger than filiform papillae.
- Present on side margins of tongue.
- Don't contain taste buds.
- Narrow neck broad base.

iii) Filiform papillae

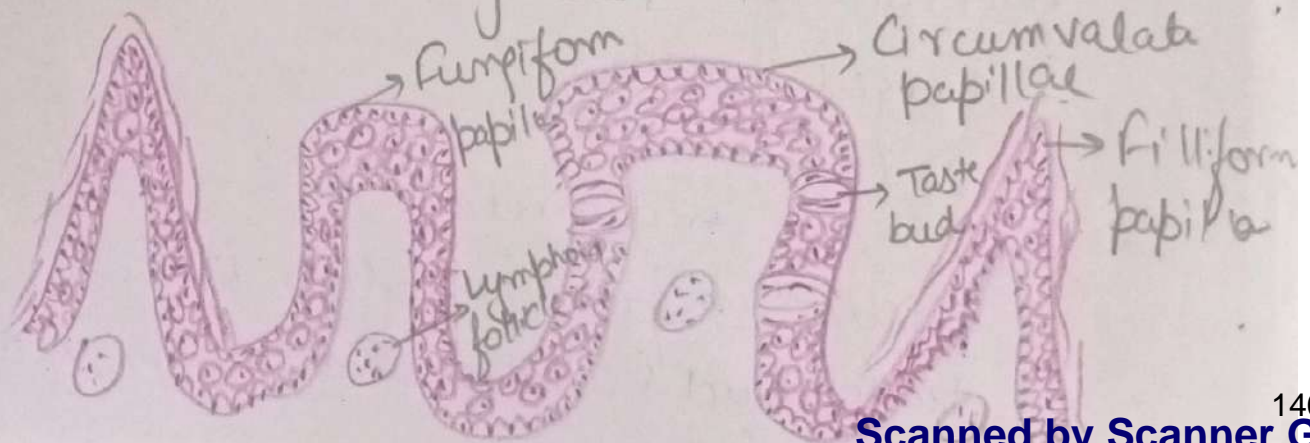
- Smallest in size but present in large no.
- Give tongue velvety appearance.
- Present on dorsum of tongue.
- Contain taste buds.

iv) Foliate papillae

- This papillae is rudimentary in humans.
- Present on post margin of tongue.
- Leaf shaped



Tongue

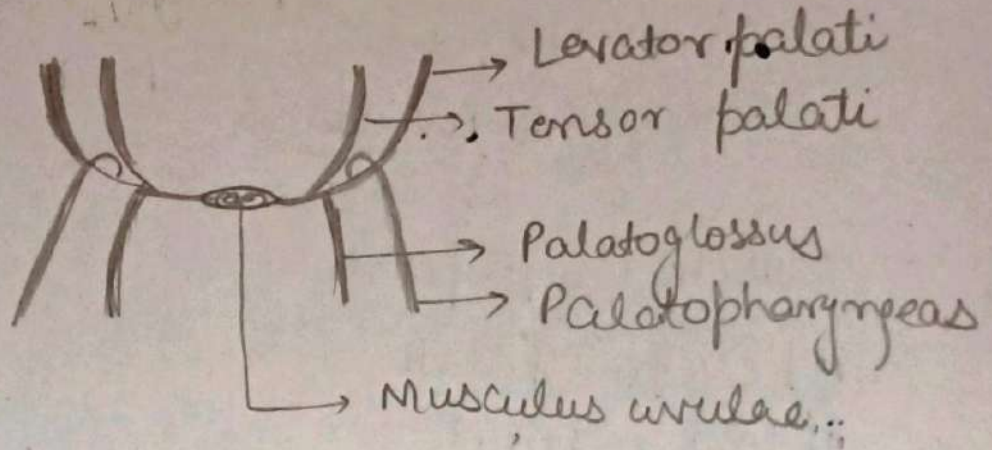


## FIRST / SECOND / THIRD INTERNAL ASSESSMENT EXAMINATION

Name: Honey Reg. No. \_\_\_\_\_  
Class: IBDS Subject: anatomy Date: 18/8/21

### SECTION

#### 8. Soft palate



#### Muscles of soft palate

- Soft palate is the muscular fold, movable and attached to post-border of hard palate.
- It has 2 surface → ant. surface  
→ post. surface

i) Ant. surface  
- concave  
- ~~at each~~ marked by median raphe.

ii) Post. surface  
- convex  
- attached to the floor of nasal cavity.

→ It has 2 borders → Sup. border  
↳ Inf. border

i) Sup. border

- attached to post. border of hard palate.

ii) Inf. border

- free, and covers pharyngeal isthmus  
- in middle, tongue like projection hangs  
known as uvula.

→ Muscles of soft palate

i) Levator palati

ii) Tensor palati

iii) Musculus uvulae

iv) Palatoglossus

v) Palatopharyngeus.

→ Nerve supply

i) Motor nerve → Pharyngeal plexus of nerves  
supply to all muscle except (levator palati), it is supplied by glossopharyngeal nerve

ii) Gen. & Special. sensation → Medial & Posterior Palatine branch.

iii) Sensory nerve → Lesser palatine nerve

iv) Secretomotor nerve → Lesser palatine nerve

→ Arterial Supply

- i) Greater palatine Artery
- ii) Ascending palatine Artery
- iii) Palatine branch of max. artery.

→ Lymphatic Drainage - Retro-mandibular lymph node

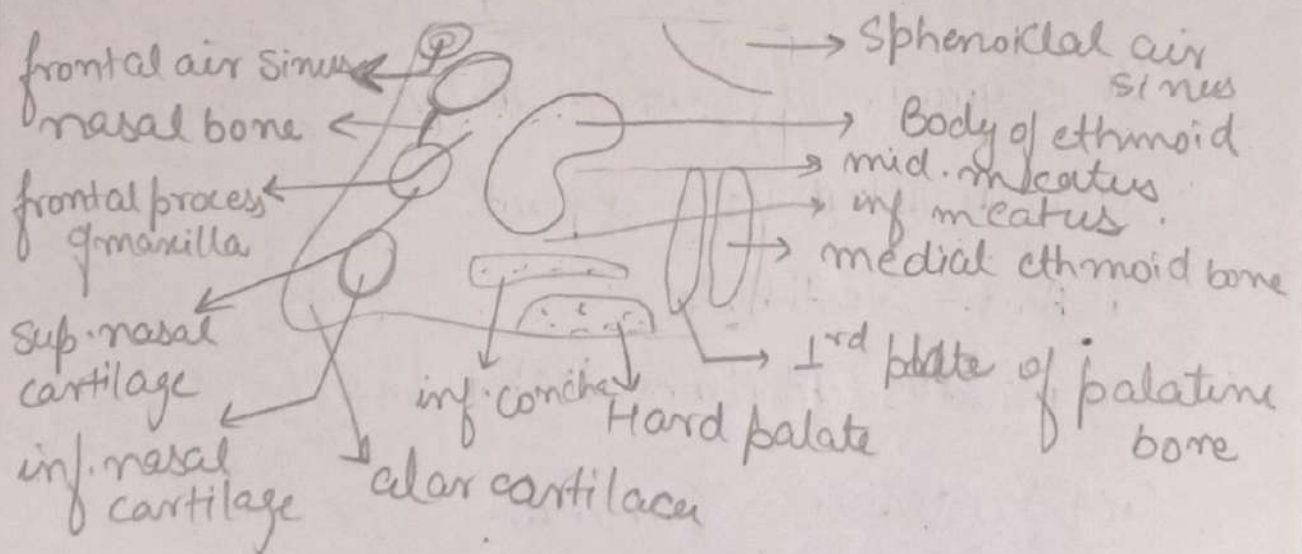
→ Applied Anatomy -

i) Paralysis of soft palate - nasal regurgitation of liquid & nasal twang in voice

ii) Cleft palate by non-fusion & ~~left~~ palate in embryonic period.

I. Long Essay Questions:-

1) Lateral wall of nasal cavity



Lateral wall of nose



### a) Bones

- nasal bone
- frontal process of maxilla
- lacrimal bone
- 1<sup>st</sup> plate of palatine bone
- medial plate of ethmoid bone
- Body of ethmoid bone

### b) Cartilage

- Sup. nasal cartilage
- Inf. nasal cartilage
- Alar cartilage

- Lat. wall of nose is dev. from nasal pit which is derived from nasal placord which is dev. from fronto nasal process.
- It is quadrangular in shape.
- It is divided into 3 parts:-
  - i) Ant. - Vestibule
  - ii) Middle - Atrium / Vibrissae
  - iii) Posterior - Concha.

### c) Mucous Membrane

- Also called nasal mucous membrane
- Covers bones & cartilage.

- Ant. 2/3 → (olfactory nasal mucous membrane)  
which contains olfactory neurons
- Post. 1/3 → (respiratory nasal mucous membrane)

→ Concha are curved bony elevations which runs towards and medially.

It is of 3 types :-

- Inf. concha - independent bone
- Middle concha - projections from medial surface of ethmoid bone
- Sup. concha - projections from medial surface of ethmoid bone

→ When all these bony elevations are cut, it forms small depressions/gap known as meatus.

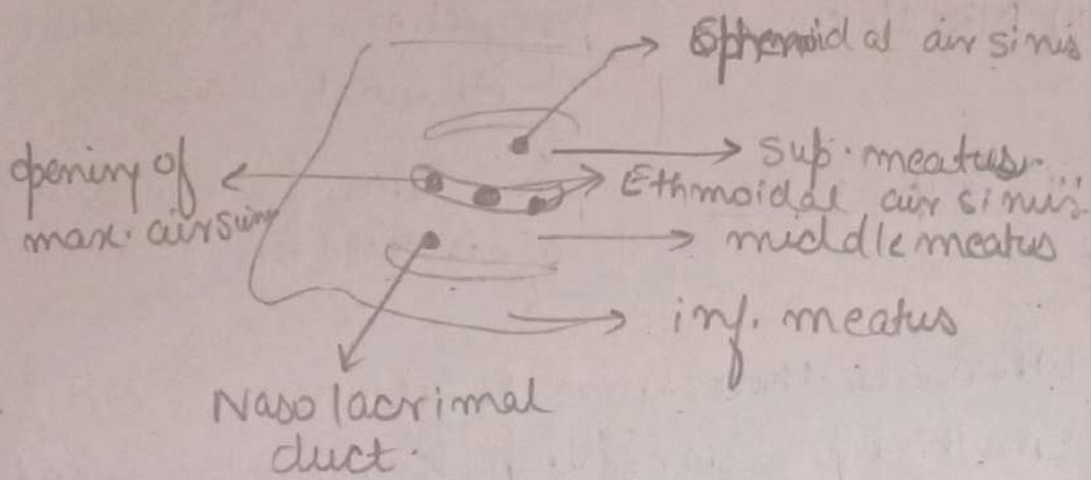
It is of 3 types :-

- Inf. meatus - below inf. concha
  - largest meatus
  - nasolacrimal duct opens into it
- Middle meatus - below middle concha.
  - has following features :-
  - ⊙ Ethmoidal bulla
  - ⊙ Hiatus semilunaris
  - ⊙ Infundibulum
- Sup. meatus - below sup. concha
  - short & shallowest

→ Following paranasal air sinus :-

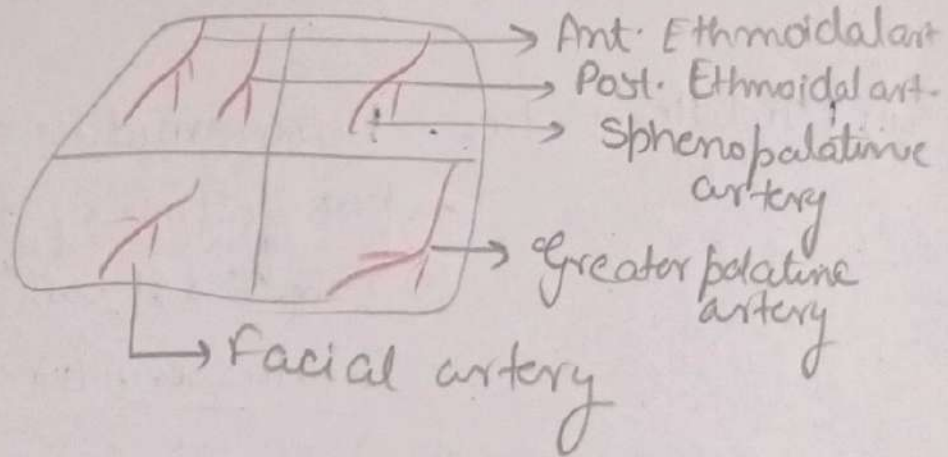
- i) Max. air sinus
  - ii) Ant. Ethmoidal air sinus
  - iii) Mid. Ethmoidal air sinus
  - iv) Frontal air sinus
- } open in middle meatus.

- i) Sphenoidal air sinus
  - ii) Post. Ethmoidal air sinus
- } opens in sup. meatus.



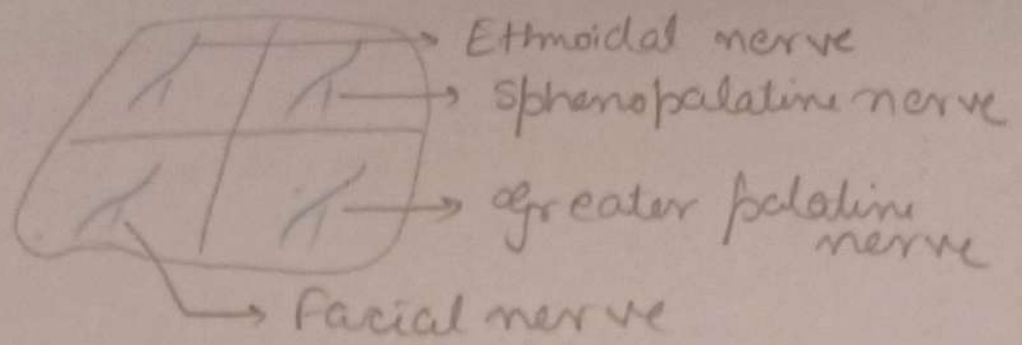
MEATUS

d) Nerve Supply & Blood Supply



→ Venous Drainage - Ant. facial vein  
 Pterygoid plexus of nerves

→ Lymphatic Drainage → Submandibular node & sublingual lymph node



→ Applied anatomy :-

- i) Common cold (rhinitis) common infection of nose.
- ii) Max. sinusitis.

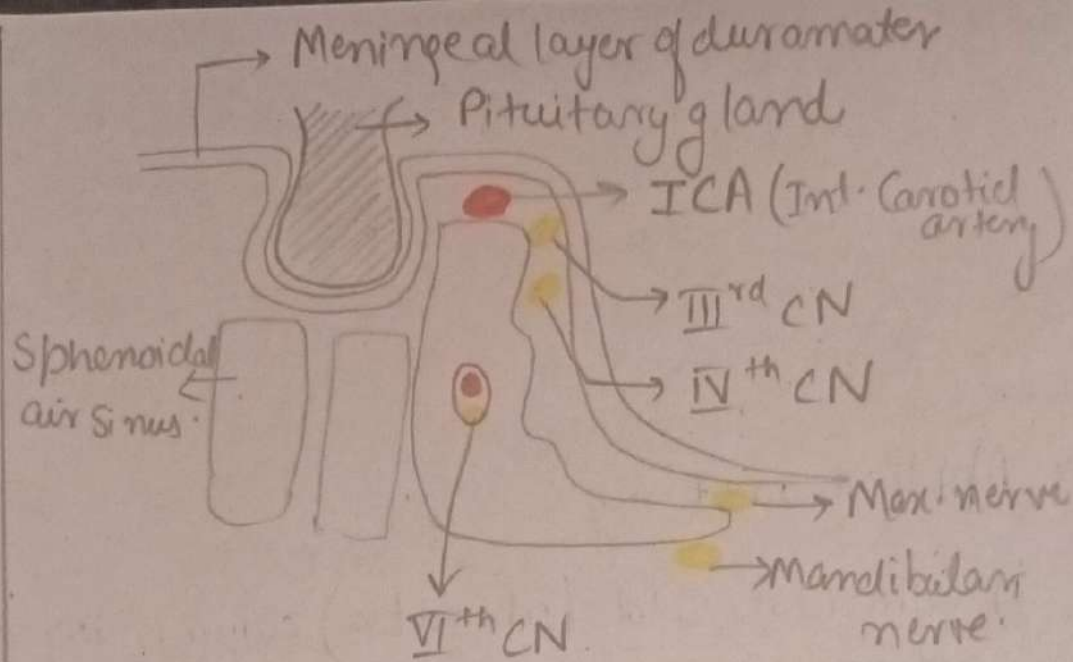
## 2. Cavernous Sinus

- It is a paired dural venous sinus.
- It is present in cavernous sulcus.
- Measurement :-
  - Length - 2.5cm
  - Width - 1.5cm.
- It extends from foramen lacerum to sup. orbital fissure.

→ Relation on its lateral wall :-

- i) III<sup>rd</sup> CN (Oculomotor nerve)
- ii) IV<sup>th</sup> CN (Trochlear nerve)
- iii) VI<sup>th</sup> CN (Abducent nerve)

iv) Ophthalmic & max. division of Trigeminal nerve



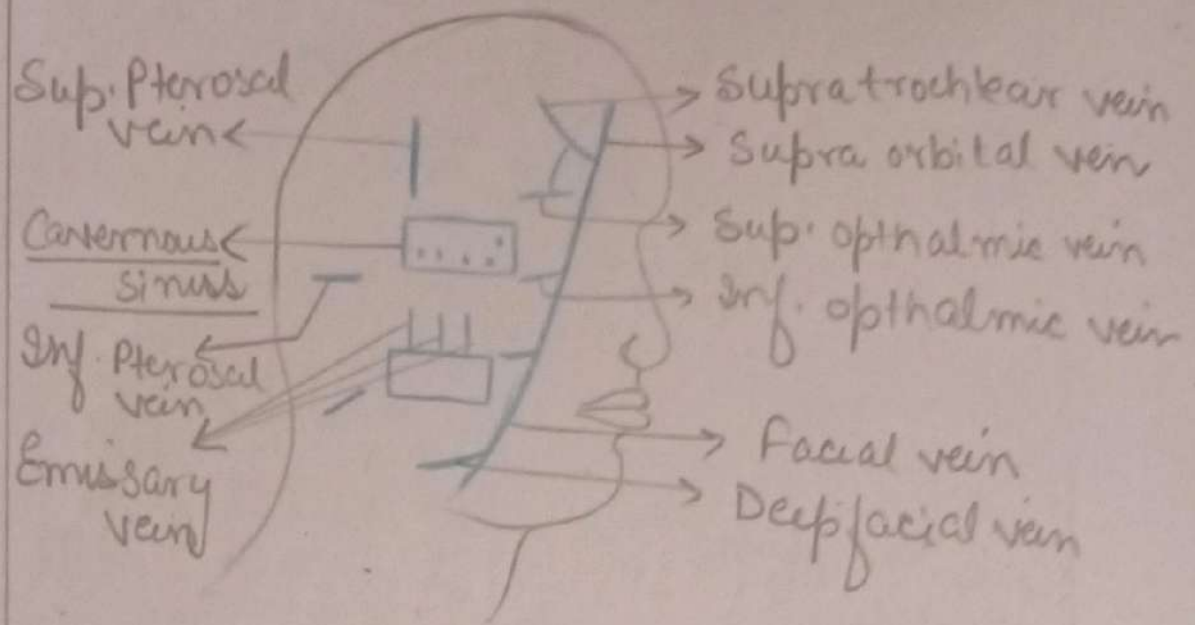
## CAVERNOSUS SINUS & ITS RELATIONS

→ Structures piercing Cavernous sinus:-

- i) Int. Carotid artery
- ii) Int. Carotid plexus of nerves
- iii) VI<sup>th</sup> CN

→ Tributaries:-

- i) Emissary vein passing through emissary foramen.
- ii) Laryngeal vein
- iii) Sup. & Inf. Ophthalmic vein
- iv) Sup. & Inf. Pterosal vein




## Cavernous sinus & its tributaries

→ Applied anatomy

### i) Cavernous Venous Thrombosis

- Any small blood clot passes through emissary vein and lodges in cavernous sinus
- After some years, blood clot enlarges and put press. on cavernous sinus and also on optic vein which leads to blindness, epilepsy

  
**PRINCIPAL**  
 Dayananda Sagar College of Dental Sciences  
 Kumaraswamy Layout,  
 Bangalore - 560 078.

Name : Inara Inani Reg. No. : 9

Class : IInd BDS Subject : Dental Materials Date : 2/12/2019

### SECTION

#### 1. Classification of Impression materials

44/2  
70

PS

##### I: Rigid or Elastic

eg: impression compound, ZOC paste

elastic

→ Agar  
→ Alginate

elastomeric  
→ Addition silicones  
→ polyether.

Mucostatic

##### II: Mucocompressive

↳ These are the ones that displace the tissues

↳ eg: impression compound

↳ These materials make an impression without compressing the adjacent tissues  
↳ eg: alginate agar.

##### III: Thermosetting and thermo setting.

Alginate: irreversible hydrocolloid. extracted from sea weed.

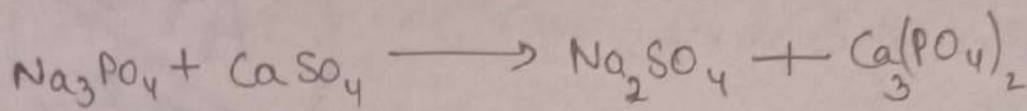
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##### Composition of alginate.

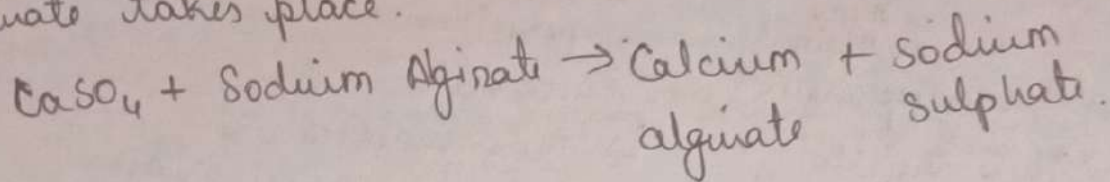
1. Sodium/potassium alginate → main ingredient.
2. Calcium sulphate → reacts with sodium alginate to form calcium alginate.
3. Sodium triphosphate → retarder
4. Potassium titanium fluoride → gypsum hardness.
5. Diatomaceous earth → filler particles.

Setting reaction

- Alginate reacts with Calcium sulphate to form calcium alginate.
- This reaction proceeds very fast, hence sodium triphosphate is added as a retarder.
- ↔ Sodium triphosphate reacts with calcium sulphate → first reaction



- After the concentration of retarder is almost nil, the second reaction between ~~Sodium~~  $\text{CaSO}_4$  and Sodium alginate takes place.



### Properties of alginate Impression Compound.

① ~~Synopsis~~ To

1) Mechanical properties

a) Compressive strength: it has a average compressive strength, but it is less compared to agar.

b) Tear strength: very low tear strength. Hence the impression should be removed at one stroke.

c) flexibility: alginate has a flexibility less than that of agar.

d) elasticity: considerable elasticity, but less than that of agar.

e) Synthesis and inhibition

The cast should be poured immediately after the impression is taken. This is because

Syneresis: in a dry environment water oozes out



From the set <sup>alginate</sup> cement, onto the surface of the impression  
Some soluble particles are also lost.

<sup>bi</sup> Imbibition: if kept in water, it absorbs the water inside  
Both these properties cause distortion of the impression.

3] Taste: alginate is available in various flavours  
and hence is patient friendly. ~~9~~ 9

## 2. Classification of amalgam alloys.

### I. Based on the no. of alloy particles.

(i) Binary - Ag - Sn

(ii) Ternary - Silver - tin and copper

(iii) Quaternary - Silver, tin, copper and Indium.

### II. Based on ~~no.~~ of shape of particles

(i) lathe cut

(ii) spherical &

(iii) spheroidal.

### III. Based on the size of particles

- micro filled

- macro filled.

①

### IV. Based on copper content

- low copper - contain  $\leq 6\%$  Cu.

- High copper  $\rightarrow$  contain  $> 6\%$  Cu.

### V. Based on zinc content

- ~~High~~ Zinc containing alloy  $\rightarrow > 0.01\%$  Zn.

$\rightarrow$  Zinc free alloy  $\rightarrow < 0.01\%$  of Zn.

### VI. Based on presence of other metals.

$\rightarrow$  Palladium

$\rightarrow$  Platinum

## High Copper amalgam alloys.

→ Contain more than 6% of copper

### Composition % wt

Ag — 69%

Sn — 14%

Cu — 13%

Zn — 1%

→ Silver: major reacting ingredient

→ whitens the alloys.

→ Prevents corrosion & tarnish

→ ↑ ses the setting expansion

→ ↓ ses the setting time.

→ Tin → amalgamation

→ ↓ ses setting expansion

→ ↑ ses setting time

→ reduces the resistance against tarnish and corrosion.

→ Cu → Increases strength

Increases resistance to tarnish and corrosion.

→ Zinc → Acts as a scavenger and prevents oxidation of silver during manufacture as well as after use.

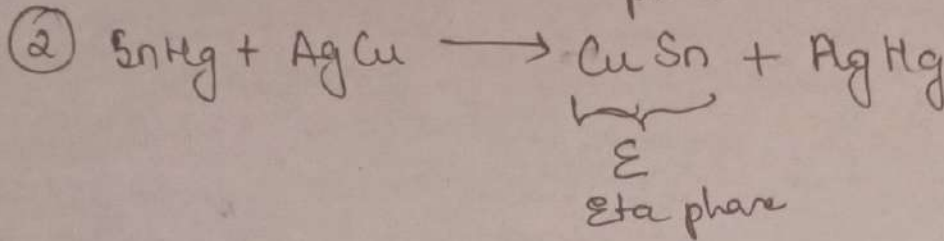
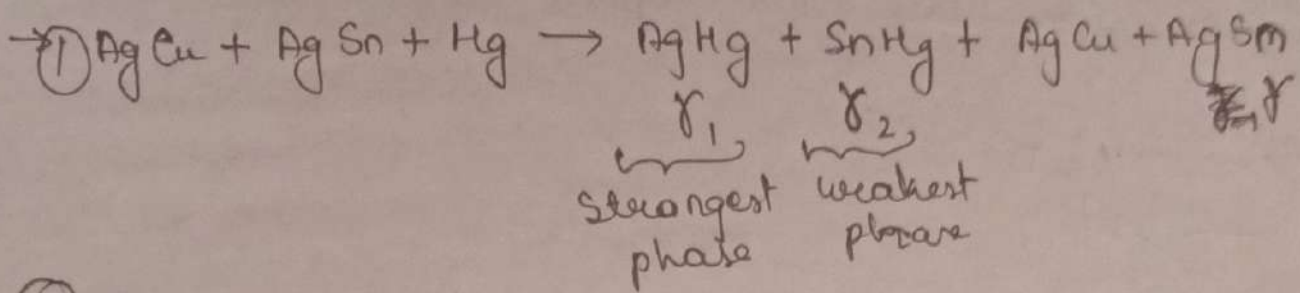
→ Palladium → whitens the alloys.

→ Platinum → ↑ ses strength.

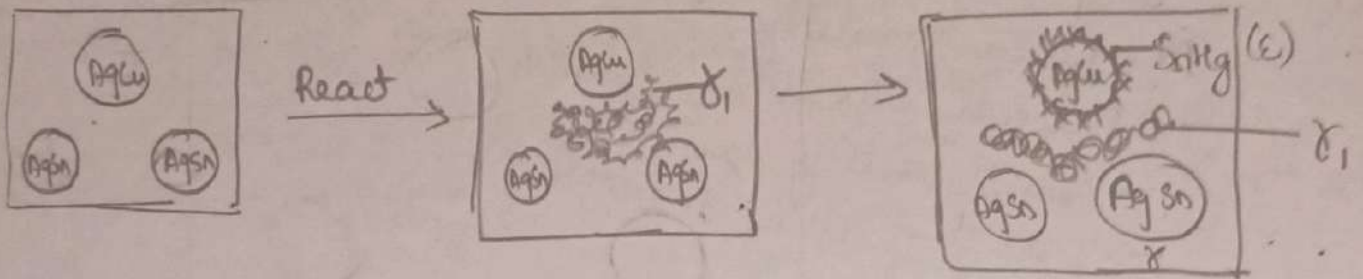
→ High copper alloys are made of 2 particles of lattice cut and 1 part of spherical alloys.

→ This high copper alloys have a longer ~~set~~ high strength because  $\delta_2$  phase is eliminated.

## Setting reaction of high Cu alloys.



Hence  $\gamma_2$  is eliminated.



Set cement: core is made up of AgSn, Halo of AgCu surrounded by SnHg.

6/2

Matrix is made up of AgHg.

### Properties of <sup>High</sup> Amalgam

- Increased strength
- <sup>More</sup> resistance to tarnish and corrosion.
- less amount of mercury required.

### Manipulation (Maturating)

- Case's technique → 1:1 ratio of powder and liquid.

#### 4.] Expansion of gypsum products.

##### Hydroscopic expansion

- Set gypsum products when kept under swarming water tend to expand.
- This is because, when water is incorporated within the set mass, it provides as medium for the crystal to grow. The nuclei of crystallisation increase. Hence causing expansion of the gypsum product.
- In some cases this expansion is desirable: like in casting procedures where the expansion of gypsum product compensates for the metal shrinkage.

#### 5.] Acid etching

- while doing composite restoration acid etching is done first to improve bonding of the composite.
- The tooth surface is etched, primers are applied and then these primers are coated with adhesives.

##### → Acid etchant

⇒ eg: Phosphoric acid (37%) majorly used.

Malleic acid

Citric acid

Oratic acid

Nitric acid

(H)

for etching of dentin: ~~so~~ mild etchants are used.

## # Etching time

Enamel	15 secs
Dentin	<del>10 secs</del> 10 secs
Primary Teeth	60 secs
Fluoridated teeth	120 secs

## # What does etching do?

In enamel

Removes the smear layer

↓  
Converts the smooth surface into rough surface

↓  
↑ surface energy

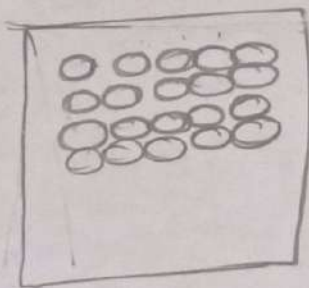
In dentin

Removes the smear layer

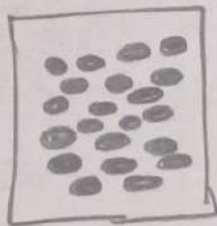
↓  
Disintegrates the intertubular and peritubular dentin.

## # Patterns of etching

- 3 Types →
- I - core is removed, peripheries are intact.
  - II - core is intact, peripheries are removed.
  - III - mixed



Ist



IInd

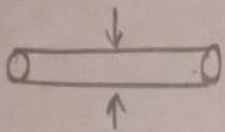
## 6) Stress and strain

Stress: Stress is  $\uparrow$  when a force is applied on a object the object resists the deformation by applying an opposing force which is known as stress.

3 Types of stresses

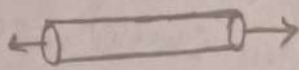
$$\text{Stress} = F/A$$

Compressive



when force is applied in the same direction vertically.

Tensile



when force is applied in opposite direction horizontally.



when two parallel force are applied

③

F = force  
A = per unit area.

Strain: strain is defined as the amount of deformation caused by an applied amount of stress <sup>when</sup> as compared to the original dimensions of the object.

$$\text{Strain} = \frac{\Delta L}{L} \text{ (compressive stress)}$$

## 7. Composition and setting reaction of zinc phosphate

### Composition

- Powder
- ① Zinc oxide → major reacting substance.
  - ② Major Magnesium oxide → filler
  - ③ Other oxides like Barium oxide → filler.
  - ④ Silica → filler

### Liquid

- ① Phosphoric acid
- ② Aluminium / Zinc phosphate

③ water

④ Alumina

⑤ Zinc

②

### Setting reaction

- Zinc oxide reacts with phosphoric acid to release free Zn ions.
- These ions combine with alumina to form a matrix of Zn-alumino phosphate.



## 8) Classification of Composites

### I Based on polymers

→ Restorative

→ luting

### II Based on curing

→ Chemically cured

→ Light cured

→ Dual cured.

### III → Based on the filler particles

• Macro filled

• Mid filler

• Mini filled

• Micro filled

• Nano filled

• Hybrid

3

### IV → Based on flow

• Conventional

• Flowable

• Packable.

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## FIRST / SECOND / THIRD INTERNAL ASSESSMENT EXAMINATION

Name : Inara Isari ..... Reg. No. : 9 .....

Class : 2nd BDS ..... Subject : Dental Materials ..... Date : 2/12/2019 .....

### SECTION

#### Q] Methods of curing

- Heat cure acrylic resins are cured by using heat.
- Chemically cured acrylic resins are cured by polychemical reaction between the particles.
- Light cured - used source of light is used.

(2)

#### Heat curing

##### → Curing cycle

For resins of thick consistency

→ 74°C for 8 hours

→ 74°C for 8 hours, boil for 1 hour.

for this consistency

→ 74°C for 2 hours, boil for 1 hour.

Before curing cycle - bench curing is done to increasing homogeneity and spread of monomer. (15-30 mins).

Name : Miki Gowami ..... Reg. No. : 18A0090 .....

Class : II BDS ..... Subject : Pathology ..... Date : 24/02/2020

## SECTION

23  
25

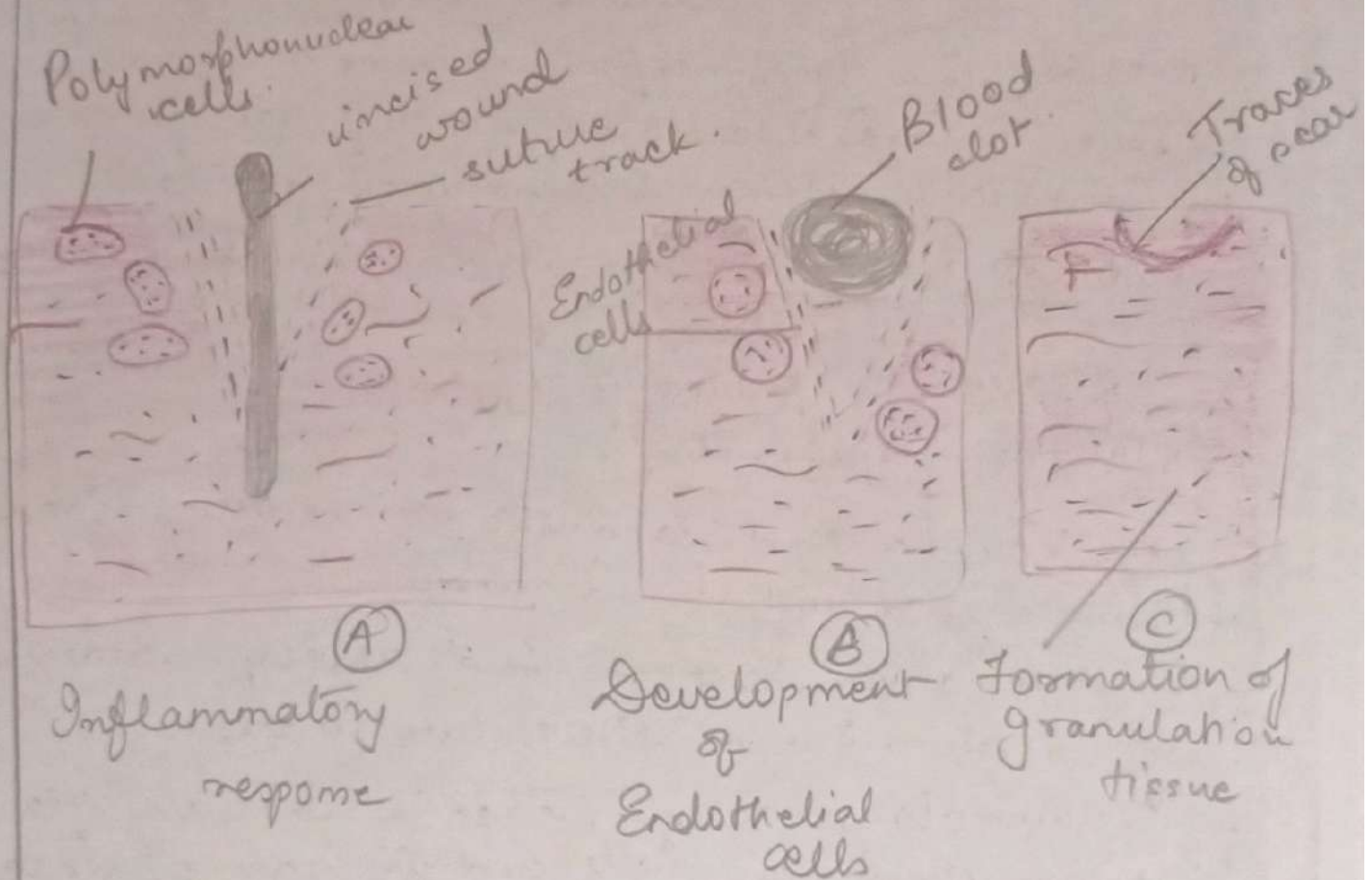
1. Healing is a local response of (many) mammalian tissue in (order) order to repair any damage caused by (and) any agents internally or externally. The agents may be physical, chemical or microbial.

Healing by primary intention includes the following steps: -

- The incised wound and the (the) suture track become filled with blood and.
- Inflammatory response (the) develops around the incised wound and the suture track.
- Inflammatory cells in case of acute inflammation is Polymorphonuclear cells and in case of chronic inflammation, it is plasma cells.
- ~~Development of granulation tissue begins~~
- Endothelial cells develop around the <sup>incised</sup> ~~suture~~ wound and suture track.
- Development of granulation tissue occurs from below.
- When the suture is removed after 7-8 days, less suture <sup>scar</sup> marks are left behind.

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- In healing by primary intention, there is no acute inflammatory response.
- No severe blood loss.
- Wound heals fast.
- No scar left.



Factors affecting wound healing are:-

- Presence of pre-existing infection delays wound healing.
- Movement of the injured area, delays wound healing.
- Exposure to UV rays accelerates wound healing.
- Age - Wound or injuries in children heals faster than that in old age.
- Nutrition - Good nutrition accelerates wound healing.

- 8
- Normal leucocyte count accelerates wound healing. Less neutrophil count delays wound healing.

## Q. Pathologic calcification.

Pathologic calcification are of two types.

- (i) Dystrophic calcification.
- (ii) Metastatic calcification.

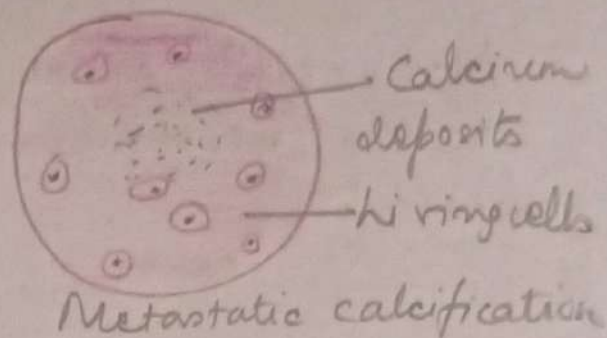
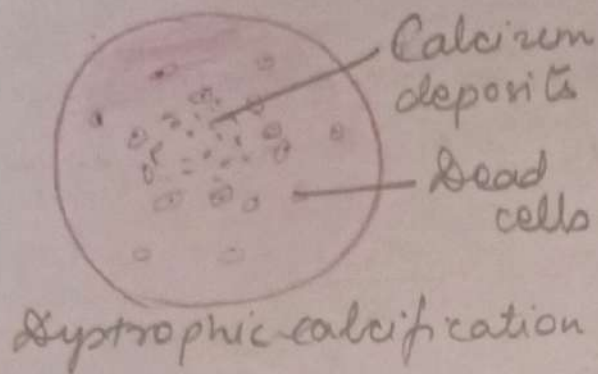
### Dystrophic calcification:

- Here, deposition of calcium salts takes place in the dead tissues.
- Calcium metabolism is normal.
- Serum calcium level is normal.
- Pathogenesis - the phosphates bind to the dead tissues which attract calcium salts. Thereby, increasing the deposition of calcium phosphate.
- Causes - Necrosis.

4 1/2

### Metastatic Calcification.

- Here, deposition of calcium salts take place in the normal tissues.
- Calcium metabolism is deranged.
- Serum calcium level is increased leading to hyperglycaemia.
- Causes - Hyperparathyroidism.
- Pathogenesis - Increases deposition of calcium salts in pancreas, kidney, gall bladder, etc.



### 3. Gangrene.

- Gangrene is a type of necrosis with superadded putrefaction.
- It is a type of coagulative necrosis.

There are three types of gangrene.

- Dry gangrene
- Wet gangrene
- Gas gangrene (a type of wet gangrene)

#### Dry gangrene:

- Occurrence is common in the limbs.
- Cause is arterial occlusion.
- The affected area is sunken, dark and represents the foot of mummy. The affected area is dark because of the haemoglobin released from the haemolysed RBC which is acted upon by  $H_2S$  gas producing iron sulphide, which is black in colour.
- There is a demarcation between the affected part and non-affected part.
- No growth of bacteria.
- Chances of septicæmia is less.
- Examples: gangrene of feet.

## Wet gangrene:

- Occurrence is in <sup>intestine</sup> bowel.
- Causes is due to venous occlusion and less likely due to arterial occlusion.
- The affected area is moist, soft, swollen, dark, rotten and smelly.
- There is no clear demarcation between the affected and unaffected parts.
- Growth of bacteria is high.
- Changes of septicæmia is high.

## Gas gangrene:

- It is a type of wet gangrene.
- Presence of air bubbles in the tissues is seen.
- Caused by Clostridia, a gram positive anaerobic bacteria.

## 5. Amyloidosis

Amyloidosis is a group of diseases characterized by the appearance of numerous fibrillar proteinaceous substances called amyloid.

### Classification of Amyloidosis

#### Systemic Changes

Type	Diseases caused	Biochem Type	Commonly affected organs
Primary	Plasma cell dyscrasias	AL	Skin, heart
Secondary	Chronic inflammatory reaction	AA	Liver, spleen, kidney
Haemodialysis	Acute renal failure	Aβ <sub>2</sub>	Synovial joint

#### Localized Changes

Type	Biochem Type	Commonly affected organs
Senile cardiac	ATTR	Heart
Senile cerebral	AL	Cerebral nerves
Endocrine Tumour making	AB <sub>1</sub> Proinsulin	Islets of Langerhans Lung, Breasts



## 7. Fatty change.

- Fatty change or steatosis is the accumulation of neutral fat in the parenchymal cells.
- Accumulation of fats take place in the lipid cytosol and hence there is increase in intracellular lipid content.
- Liver is the main organ of fat deposition. Other organs include heart, skeletal muscle, pancreas, gall bladder.

The causes of fatty change are:-

- Obesity, diabetes mellitus, Congenital type hyperglycaemia.
- Chronic alcoholism, Starvation, Pregnancy, Protein Calorie Malnutrition.

Fatty changes can occur when there is any of the following metabolic disorders.

- Increased entry of fat cells into the organ.
- Decreased excretion of fat cells from the organ.
- Decreased conversion of fat cells into ketone bodies.

## 8. Hypertrophy.

- Hypertrophy is increase ~~or~~ in size or enlargement in the of an organ.
- It may be due to increase in the number of cells, or increase in the size of the cells or both.
- Hypertrophy may be both physiologic and pathologic.

## Physiologic causes of hypertrophy

- Increase in the size of the pregnant uterus.
- Increase in the size of female breast during puberty.

## Pathologic causes of hypertrophy

- Fatty liver occurs due to increased metabolism and deposition of fat.
- Hypertrophied heart due to ~~CCF~~ CCF

② Congestive Cardiac Failure and Myocardial infarction.

- Sarcaceous Spleen.

9. Cardinal signs of acute inflammation are: -

(i) RUBOR - Redness.

(ii) TUMOR - Swelling.

(iii) CALOR - Heat

(iv) DOLOR - Pain

The fifth cardinal sign is proposed by

② Virchow which is 'Function Laesa' which means loss of function.

⑥ Calculus oris.

It is the deposition of some agents in the tissues leading to the formation of a hard calcified structure.

## ④. Chemical mediators of inflammation.

The chemical mediators of inflammation are Bradykinin, interleukins, ~~Inflammatory cells~~, ~~Polymorphonuclear Cells~~,

- The chemical mediators of inflammation cause swelling, redness, heat and induce pain at the site of injury.
- They cause ~~contraction~~ transient vasoconstriction; followed by persistent vasodilatation which causes blood flow to the affected area and hence redness.
- They cause increase in hydrostatic pressure which leads to swelling.
- Status of Blood Flow; blood becomes viscous.

③ - Later ~~via~~ they induce changes in Vascular Permeability.

- Contraction of Endothelial Cells, followed by retraction of Endothelial Cells and then injury of endothelial cells by leucocytes.

They then induce chemical changes.

- They cause exudation of leucocytes from the lumen of microvasculature to the interstitial cells.
- When the leucocytes move away from the endothelial cells, the RBCs are move through the space of endothelial cells causing 'diapedesis'.

They later induce Phagocytosis of the foreign agent and denaturation of it and degeneration of the foreign body by hydrolytic enzymes released by lysosomes.

*[Handwritten signature]*

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## FIRST / SECOND / THIRD INTERNAL ASSESSMENT EXAMINATION

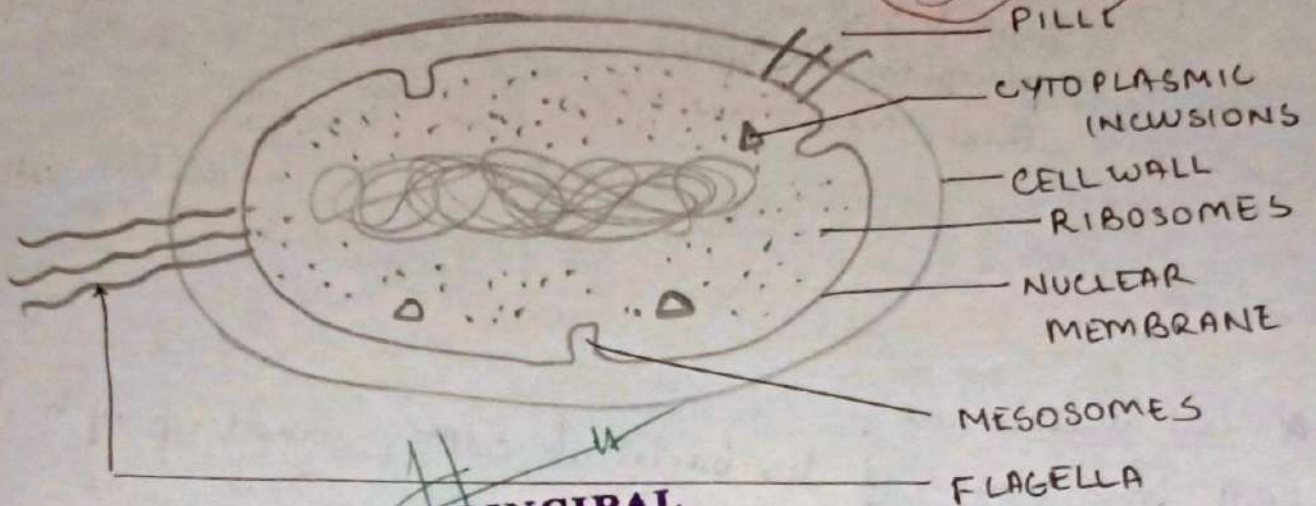
Name : Inara Isani ..... Reg. No. : 9

Class : II<sup>nd</sup> BDS ..... Subject : Microbiology ..... Date : 27/11/2019

### SECTION

29  
35

1. Anatomy of Bacterial cell.



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### CELL WALL

- The outer most covering of the bacterial cell is the cell wall
- It is made up of peptidoglycan
- Functions :
  - protection of the bacterial cell from antibiotics
  - resistant against osmosis
  - provides rigidity to cell.

→ Based on the structure of the cell wall, there are 2 types

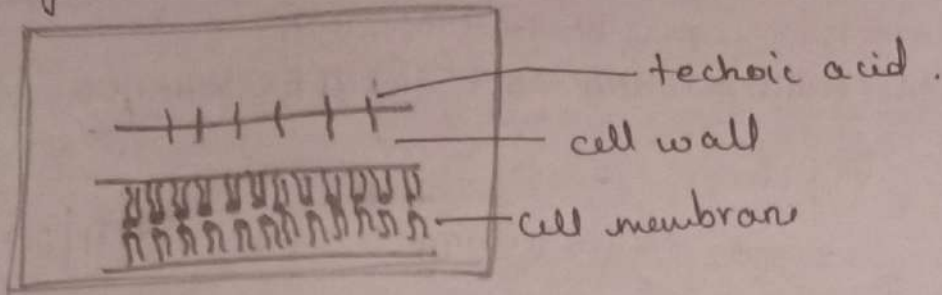
### Gram positive

- thicker peptidoglycan layer (18-12 μm)
- lower lipid content
- surface antigen is teichoic acid

### Gram negative

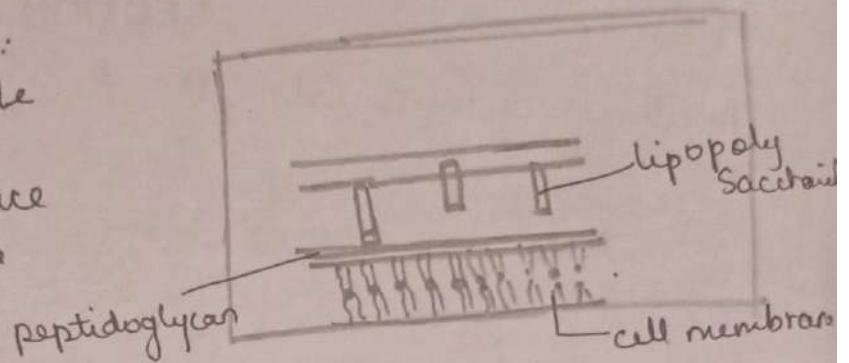
- thinner peptidoglycan layer (2-4 μm)
- higher lipid content
- surface antigen is glycoprotein A.

### \* Gram +ve cell wall



### \* Gram negative cell wall:

layer: lipopolysaccharide  
peptidoglycan  
periplasmic space  
inner membrane



### 2] \* cell membrane

- Cell membrane of the bacterial cell is made up of a lipid bilayer.
- The cell membrane has small invaginations called mesosomes.
- Mesosomes act like the mitochondria of the bacterial cell and store energy.
- Inside the cell membrane: ~~is~~ double ~~str~~ stranded DNA, cytoplasmic inclusions and ribosomes are present.

### 3] Capsule

- Capsule is the outermost covering of the bacteria.
- It is usually known as slime when it is uneven.
- Capsule in some bacteria is known for its invasive properties.

#### 4] Nucleus:

- (i) the bacterial cell does not have a well defined nucleus.
- (ii) the nuclear ~~wall~~ membrane is absent
- (iii) nucleolus is absent.
- (iv) extranuclear DNA called plasmids are present.
- (v) Single double stranded DNA is present.

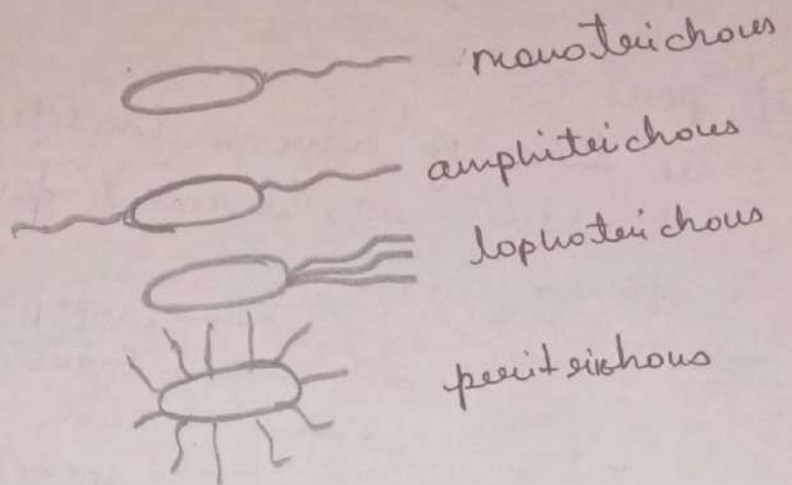
#### 5] Flagella

- Projections from the cell membrane of the bacteria.
- usually provide motility to the bacteria.
- Flagella is made up of 3 parts

- hook
- basal body
- filament.

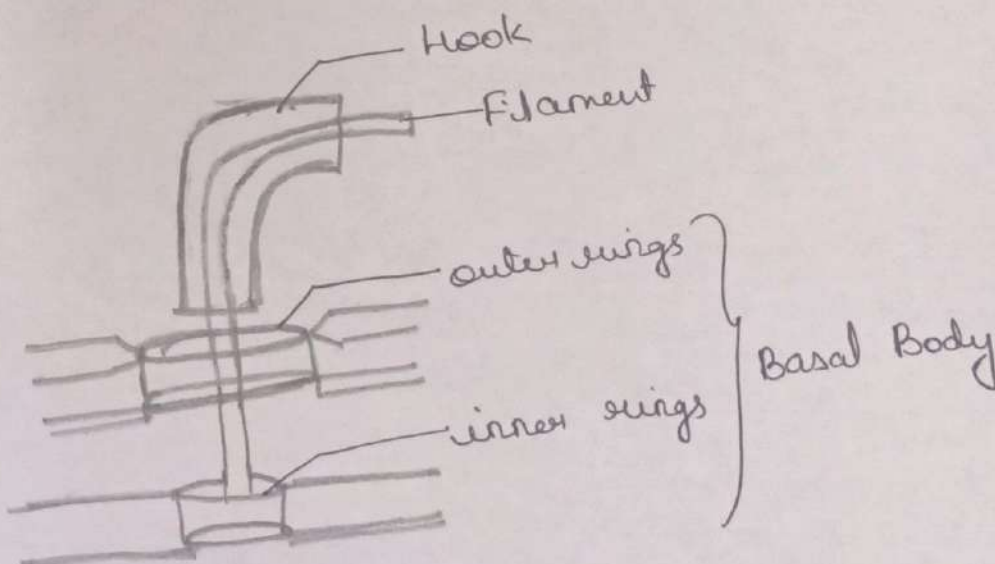
#### → Flagella orientations

- monotrichous
- amphitrichous
- lophotrichous
- peritrichous



#### → Methods of observation

- electron microscopy
- Special staining
- Hanging drop technique.



#### Structure of flagella

- outer rings are absent in gram positive bacteria.

6] Pilli: smaller ~~ves~~ <sup>from</sup> projections of the cell membrane

- usually they are organs of adherence.
- Pilli are also known as fimbriae
- Types: common pilli  
sex pilli

• Functions of (i) common pilli: adherence

(ii) sex pilli: the female and male ~~parts~~ of the bacterial cell form conjugation tubes using pilli to exchange genetic material.

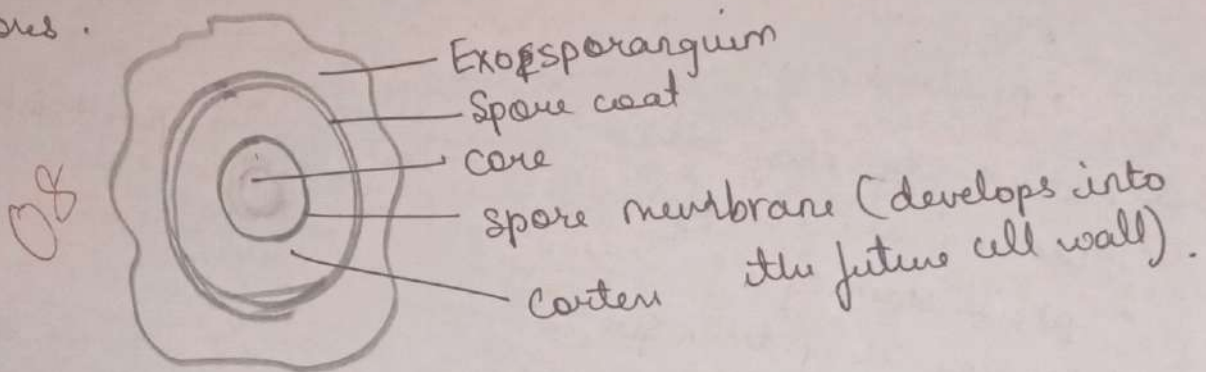
7] Ribosomes

→ protein synthesising bodies of the bacterial cell.

8] Spore

→ in ~~times~~ of adverse conditions bacteria transform themselves into dormant forms and are called spores.

→





## 2. Candidiasis

- *Candida albicans* is the causative fungus of <sup>candidiasis</sup> ~~*Candida albicans*~~
- It is an opportunistic endogenous infection
- Size and shape: round-oval in shape.
- Predisposing conditions: patients with diabetes, ~~and~~ an immunosuppressants, AIDS (where immunity is lowered).

### Pathogenesis

- Mucocutaneous lesions
- Skin and nail infections
- Internal lesions
- Oral lesions

### # Mucocutaneous lesions

- Balanitis
- Vaginitis
- Oral thrush
- conjunctivitis
- ~~contact~~ Nappy dermatitis

### # Skin and nail infections

- Skin: lesions in axillae, groin, submammary folds.
- Nails: ~~on~~ paronychia  
onychia

### # Internal organ lesions

- endocarditis
- pulmonary candidiasis
- meningitis
- urinary candidiasis

### # Oral lesions

(i) Oral thrush: elevated white plaques mainly found on the buccal surfaces of the tongue but may also be found on the palate and floor of the mouth.

(ii) Chronic oral candidiasis: it is also known as denture

induced stomatitis. It occurs due to tight fitted dentures. The saliva which has antimicrobial properties does not come in contact with the underlying palate hence causes lesions.

# Chronic mucocutaneous candidiasis: occurs in the inside as well on the outside. Similar to other lesions of the mouth.

# Cheilitis: infection of candidiasis on the corners of the lips.

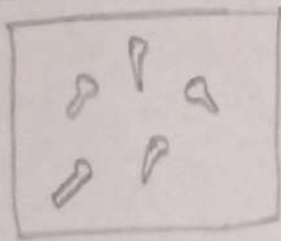
# Circumoral candidiasis: lesions around the mouth are present.

### Laboratory diagnosis

⇒ Gram staining: Gram positive budding organisms should be present.

⇒ Culture: the culture is grown in SDA medium pale white colonies appear. These are then observed under the microscope by gram staining.

⇒ Geem tube test: candidiasis grows in human sera in 2 hours.



⇒ Chlamydo spores: candidiasis in nutrient deficient media forms chlamydo spores.  
• medium used is corn meal agar.  
• chlamydo spores are found at the end of pseudohyphae.

### 3. Anaphylaxis

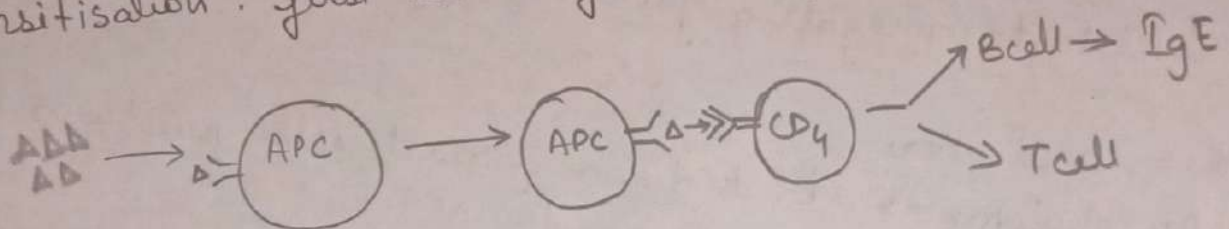
- Definition: immediate exaggerated immune response of the body to an allergen.
- allergen: antigens that cause allergy.

#### Mechanism of anaphylaxis

##### 3 Stages

- 1) Sensitisation
- 2) Resting period
- 3) Shock

1] Sensitisation: first attack by the antigen.

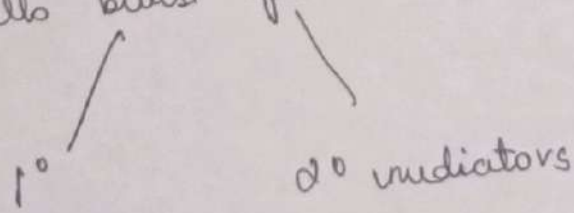


- the antigen enters the system.
- It gets attached to the antigen presenting cells.
- Antigen presenting cells present the antigen to CD4 cell.
- B cell forms IgE antibodies
- These antibodies go and attach to mast cells and basophils.

2] Resting stage: 2-6 months

3] Shocking Dose of antigen: when the system comes in contact with the same antigen the second time

- the antigen goes and binds to the IgE antibodies present on the basophils and mast cells.
- These cells burst open to release 2 type of mediators



### \* Primary mediators

- Histamine: causes vasodilation, ↑ vascular permeability
- Serotonin: causes vasoconstriction, increased vascular permeability.

→ Chemotactic factor — Eosinophilic } These are attracted  
  — Neutrophilic } to the site of reaction.

### \* Secondary mediators

- Slow reacting substance of anaphylaxis (SRS-A)  
causes ~~bron~~ sustained lung contraction, vasodilation.
- Thromboxane: vasodilation, increased mucous secretion.
- Prostaglandins: bronchoconstriction.
- Platelet aggregating factor: aggregation of platelets.

### \* Other mediators

Anaphylotoxins: break down of mast cells produces these toxins.

# Anaphylactoid reactions: These are reactions which are similar to anaphylaxis but do not include IgE.

### # Factors causing anaphylaxis

- Food
- crustaceans
- pollen
- dust
- cats & dogs

Oh

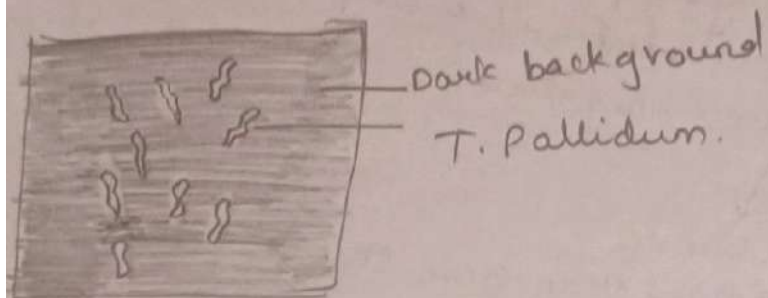
# laboratory diagnosis of Syphilis

(5)

## i) Microscopic

→ Dark ground illumination

→ Silver impregnation method: silver nitrate is added to the sample of *T. pallidum* is present silver nitrate will get converted into metallic silver which will increase the size of the cell.



## ii) Serological test

Two types

— Treponemal

• TPHA

• ~~TPHA~~

Indirect *T. pallidum*  
fluorescent absorption

— Non-treponemal

— VDRL

— RPR

## Non-treponemal tests

VDRL (Venereal disease research laboratory)

→ VDRL test principle: this test uses cardiolipin antigen (lipoic antigen) - lecithin coated cholesterol which is added to heat inactivated sera of the patient.

→ Procedure

- take 0.05 mL of cardiolipin antigen
- Add 1/60 mL of heat inactivated sera
- 180 rpm for 4 mins.
- observe under 10x

## Diagnosis

no clumps  
small clumps  
large clumps

not reactive  
weakly reactive  
reactive

Advantages: cost effective  
sensitive

Disadvantages: Biological false positive  
⇒ This means non-treponemal test will show positive but  
treponemal test will show negative

- Acute
  - less than 6 months
  - it will show +ve
  - eg: malaria, pregnancy
- Chronic
  - more than 6 months
  - hepatitis

## 2] RPR (Rapid Plasma Reagin)

Principle: This test uses carbon bounded antigen and can be viewed macroscopically.

- Procedure:
- ① 0.05 ml of ~~sera~~ antigen
  - ② 1/60 ml of heat inactivated sera.
  - ③ 100 rpm for 8 mins
  - ④ viewed macroscopically

Results: clumps occur if the organism is present and can be viewed macroscopically.

OH

## Treponemal test

① TPHA - Treponema Pallidum Haemagglutination Test Assay ⑥

- In this test <sup>sericated</sup> erythrocytes are used to react with sera of the patient suffering from syphilis.
- Reiter treponema is bound to RBCs and <sup>is</sup> made to react with the serum.
- Agglutination of RBCs gives the results.

② Indirect fluorescent staining technique

- In this technique a layer of the serum is applied above that the antibody containing ~~the serum~~ <sup>medium</sup> is applied.
- Antigen-antibody reaction occurs.
- Then this isothiocyanate coated antihuman globulin layer is applied.
- Globulin binds to the antibody that bound to the antigen.
- Fluorescent microscope is used to view.

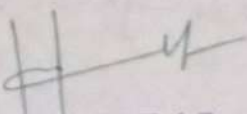
## Tests for Congenital Syphilis

→ Parallel VDRL - VDRL is conducted. If the baby's serum contains more clumps than mother's. Syphilis is present in the baby.

① Serial VDRL - VDRL is conducted for a series of 6 months.

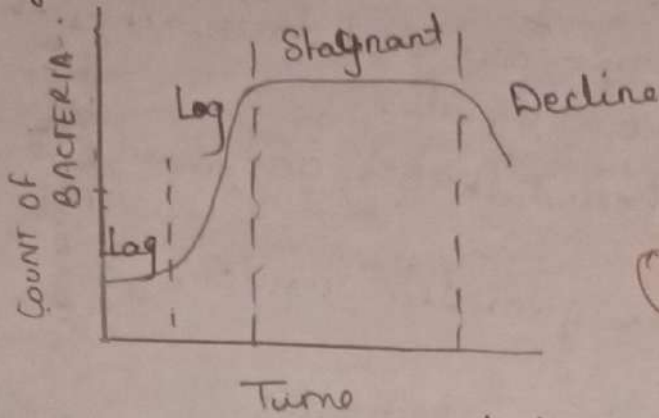
If the antibodies in the baby <sup>fetus</sup> remains constant / increases syphilis is present.

→ IgM antibody - presence of IgM antibodies indicates a congenital infection because these are not transferred placentally.

  
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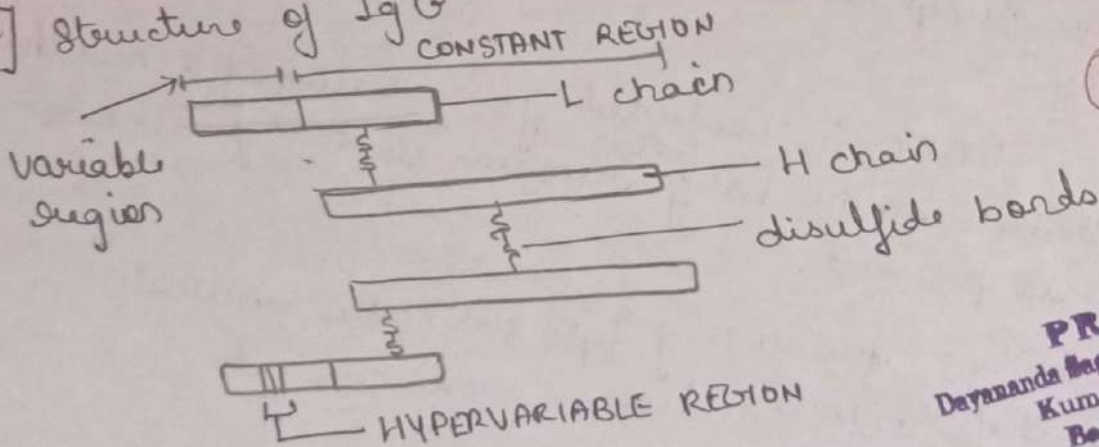
## 5] Bacterial Growth curve



- Four phases for the growth of bacteria
- Lag phase: when the cell prepares for division
  - Log phase: when the cell is undergoing mitosis.
  - Stagnant phase: where the rate of growth is equal to rate of decline.
  - Decline: death rate > growth rate.

- ## 6]
- Myasthenia gravis
  - Good pasteur's syndrome
  - Rheumatoid arthritis
  - Grave's disease
  - Systemic lupus erythematosus (SLE)

## 7] Structure of IgG



IgG

- ## 8]
- schotochromogens, non-chromogens, photochromogens, rapid growers.

- ## 9]
- Haptens: are antigenic molecules (incomplete antigens) which are able to produce immune response. But cannot start a immune response. But when combined with certain proteins they act as complete antigens.
- eg:

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51  
70

1  
2  
3  
INTERMEDIATE  
ASSESSMENT

2021

1) The various factors modifying drug action can be classified as

a) DRUG FACTORS -

Route of administration of the drug -

i) Quantitative - The amount of drug administered orally is more than the amount administered through intravenous administration

ii) Qualitative - The same drug administered in different routes produces different pharmacological action.

Eg -  $MgSO_4$  administered orally acts as a purgative whereas intravenous administration of  $MgSO_4$  causes CNS depression.

iii) Accumulation of the drug when the rate of metabolism of drug ~~is~~ is slower than rate of administration of the drug, there is accumulation of the drug leading to toxicity

iii) Characteristic of the drug

b) PATIENT FACTORS -

Age - In neonates, chloramphenicol cannot be metabolised completely as there is underdevelopment of immune system and immature

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iv) Disease - Certain hepatic diseases can alter the drug metabolism and its consequent action due to damage. Eg - lignocaine.  
This is especially important for drugs with high first pass metabolism

v) Genetic factors - Certain genetic factors play a role in drug action and metabolism.  
Eg - Slow acetylators of isoniazid and fast-acetylators of isoniazid.

vi) Drug tolerance - Certain drugs when administered ~~regularly~~ ~~repeatedly~~ consequently, cause ~~increased~~ decreased metabolism of the drug.  
Prolonged administration of agonists

↓  
Downregulation of receptors

↓  
Decreased drug response  
due to decreased metabolism.

Eg - Prolonged administration of salbutamol causes downregulation of  $\beta$  adrenergic receptors of the heart.

vii) Drug dependence - It is defined as the state maybe physical and psychid in which there is an increased compulsion to take the drug because of the discomfort of loss of the drug.

i) Physical dependence - Repeated administration of drug leads to alteration of normal body

metabolism such that there is requirement for the drug. On withdrawal, there is subsequent loss of functions and symptoms collectively called withdrawal syndrome. 6

Eg - Propanolol has to be taken off administration in a slow manner. ~~the~~ If done rapidly, it causes withdrawal syndromes and sudden ~~fall~~ rise of blood pressure etc.

ii) Psychological dependence - There person feels an intense craving for the drug; without which he feels discomfort.

Eg - Psychological dependence on opoids, alcohol.

ix) Diet - Poor nutrition can cause decreased enzyme function and decreased metabolism and subsequent action

## 2) Anticholinergic drugs.

3

### Antimuscarinic

### Antinicotinic

Antimuscarinic drugs are those drugs that block the muscarinic effects mediated by cholinergic ~~drugs~~ agents.

They can be classified as -

i) Natural alkaloids - Atropine, belladonna.

ii) Synthetic and semisynthetic -

- Drugs that have a significant mydriatic effect - Homatropine.
- Drugs that have bronchodilatory effect for chronic obstructive pulmonary disease - ~~Atropine~~ Tiotropium sodium.
- Drugs that have significant effect as preanesthetic medicine - glycopyrrolate.
- Drugs that have significant effect on Parkinsons - benztropine.
- Drugs that have effect on peristalsis - pirenzepine.

Atropine - It is a naturally occurring anticholinergic drug. It is a tertiary amine and chief alkaloid of belladonna. It has 3 routes for administration - oral, parenteral,

## Therapeutic uses of atropine -

i) It can be used as a <sup>mydriatic</sup> ~~reflex~~ and ~~use~~ for mild cycloplegia for testing refractive index of patients.

It persists for about 3-7 days but has quick onset of action.

~~It is used~~ It can be used to break the adhesion of lens in ~~cataract~~ idiocyditiis.

ii) A substitute of atropine - glycopyrrolate can be used as an effective preanaesthetic medication to prevent

- i) Bronchospasm during surgery
- ii) to prevent bradycardia

iii) Sialorrhoea (hypersalivation) - Atropine causes dryness of the mouth (xerostomia) and can be used to reduce salivation in dental surgeries.

iv) A substitute of atropine - tiotropium sodium is used as an effective agent in treating chronic obstructive pulmonary disease as it is an effective bronchodilator.

~~It is used~~ in all disorders - Atropine

### Adverse effects of atropine -

- i) Cardiovascular system - It causes initial bradycardia by acting on M<sub>1</sub> receptors followed by tachycardia when administered in ~~low~~ normal dose due to action on M<sub>2</sub> receptors in the heart.
- ii) Central nervous system - It can cause headache, nausea, vomiting. In excessive conditions, it can cause coma and death.
- iii) Atropine is contraindicated in patients with glaucoma (retinal neuropathy associated with the aqueous humor of the eye).

Q

iv) Acute belladonna poisoning -  
 The symptoms include flushing and redness of face, fever, drowsiness and in lethal doses it can cause coma and death.

### Treatment -

#### Generalised -

- i) Hospitalisation - Breathing
- ii) Maintenance of ~~airway~~ <sup>breathing</sup>. In case of unconscious patients, there is risk of respiratory blockage due to retention of saliva etc. Therefore, the patient is made to lie on his left lateral side.
- iii) ~~Maintenance of airway~~ Resuscitation may be required.
- ii) Maintenance of airway - The airway should be cleared of all material.

6  
i) Maintenance of circulation - Maintenance of heart rate and blood pressure.

ii) ~~Clo~~ Clothes should be removed if patient has been in contact with the drug.

iii) Diazepam can be given to control convulsions.

iv) Maintenance of electrolyte and fluid balance.

### Specific treatment :

Administration of intravenous physostigmine (1-2 mg)  
~~Phys~~ Physostigmine reverses all the effects of belladonna poisoning (including systemic effects).

### 3. Microsomal enzyme induction -

• Certain agents when administered repeatedly cause increase in their microsomal enzymes for induction.

Eg- Rifampmycin.

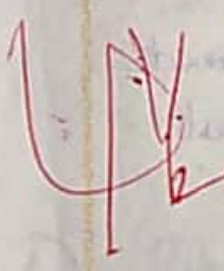
#### Clinical significance -

i) Drug metabolism - Rifampmycin when administered with oral contraceptives, it ~~decreases~~ induces the enzymes of the contraceptives (such as progesterone) rendering them in-effective.

ii) Autoinduction can lead to tolerance of the drug. Eg- Autoinduction of carbamazepine.

iii) Accumulation of drug can lead to drug toxicity: Osteomalacia caused by accumulation

iv) ~~Drugs~~ Microsomal enzymes can be used in drug therapy.





## 4) Intravenous route of drug administration

- Drug is administered into a vein and directly enters systemic circulation.

### Advantages

- i) It has quick onset of action and is the route of choice in emergency situations.
- ii) A large amount of fluid can be injected.
- iii) Plasma concentrations can be maintained by intravenous infusions (such as intravenous infusion of normal saline).
- iv) Highly irritant drugs can be administered through this route.
- v) It completely bypasses the first pass metabolism.

### Disadvantages

- i) It is not self administered
- ii) It requires clean aseptic conditions
- iii) Extravasation of drug can lead to systemic side effects
- iv) Local irritation may be produced at site of administration.

## 5) Succinylcholine

- It is a non competitive directly acting adrenergic drug.

→ Pharmacological actions :

Causes increase in ~~the~~ heart rate, blood pressure. <sup>5</sup>

- It causes increased contractility of the heart.
- It can cause vasoconstriction of blood vessels in blood vessels of the skin but vasodilatation in the blood vessels of the renal system.
- It can cause bronchodilatation and inhibits histamine release.

### Therapeutic uses -

- It can be used in treatment of anaphylactic reactions and other allergies.
- It can be used as a vasoconstrictor along with local anaesthesia to prolong its duration of action.
- It can be used for epistaxis in major surgeries due to its ability of vasoconstriction.

6) Plasma protein binding: Plasma proteins present in blood as globulins and albumin.

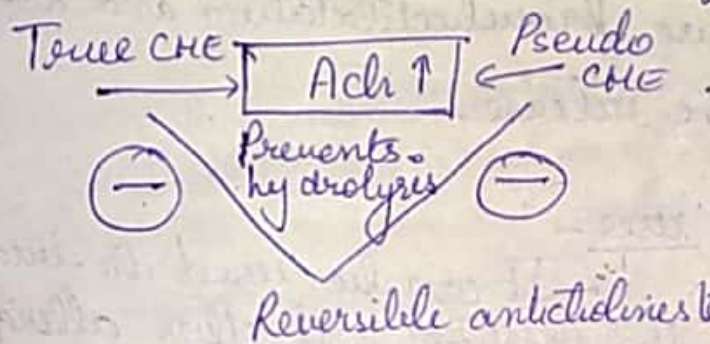
Drug + Plasma protein → Acts as a reservoir of drug.  
(in free form)

↓ Detachment  
Drugs in (free form) → Can get metabolised to produce action.

Significance - It can increase the duration of action of drug.  
It reduces the frequency of dosage.  
Bound drugs act as reservoir to the body.

## 7) Therapeutic uses of reversible anticholinesterases -

Reversible anticholinesterases reversibly inhibit both true and pseudo cholinesterases, thereby increasing the concentration of acetylcholine.



### Therapeutic uses are -

i) In the eye, it is used in treatment of glaucoma.

Glaucoma is a progressive retinoneuropathy where there is excess production of aqueous humor in the eye and loss of subsequent draining of the aqueous humor through a transmembranous network.

Neostigmine can be used in treatment.

ii) Post operative urinary retention - Pyridostigmine can be used to relax the muscles of the urinary bladder and help in micturition.

iii) Myasthenia gravis - It is an autoimmune disease characterised by muscle weakness due to antibodies formed against the N<sub>1</sub> nicotinic receptor of the neuromuscular junction. Neostigmine can be administered to increase local concentration.

of acetylcholine at the neuromuscular junction.

Neostigmine does not cross the ~~blood brain barrier~~ ~~blood brain barrier~~ - blood brain barrier. Therefore, it cannot cause any systemic effects and it is preferred over physostigmine.

i) In treatment of ~~parkinsons~~ Parkinsons - Parkinsons is a progressive degeneration of the cerebral cortex. It can be treated by galactamine.

v) In acute belladonna poisoning - Physostigmine is used in treatment of belladonna poisoning. (1-2mg/dl) intravenous administration of physostigmine is used. It causes reversal of all the systemic effects of poisoning.

8. Fixed dosage combinations -  
Combinations of two or more drugs in a fixed ratio in a single formulation:  
eg - Levodopa + Carbidopa in the treatment of Parkinsons disease.

Advantages	Disadvantages
<ul style="list-style-type: none"><li>• Patient compliance is better.</li><li>• Reduction of frequency of dosing.</li></ul>	<ul style="list-style-type: none"><li>• <del>Influctuant ratios</del>.</li><li>• Inflexible ratios.</li><li>• The preparation cannot be used if there is contraindication for even a single component.</li></ul>

Interference in the pharmacokinetics of the constituents of the formulation.

Poor knowledge of pharmacokinetics of drug by the pharmacist

Toxicity due to improper ratios in preparation of the drug.

3

9) Drug synergism - ~~The effect of two~~

The combined effect of two drugs given simultaneously is much greater than the individual effect of the drug.

~~Drug antagonism -~~

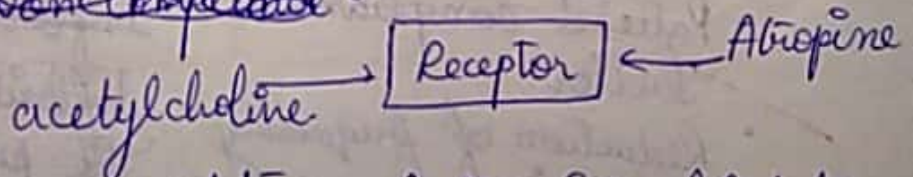
~~Physical antagonism - Due to difference in physical properties of the drug.~~

~~Chemical antagonism - Due to difference in chemical composition of the drug.~~

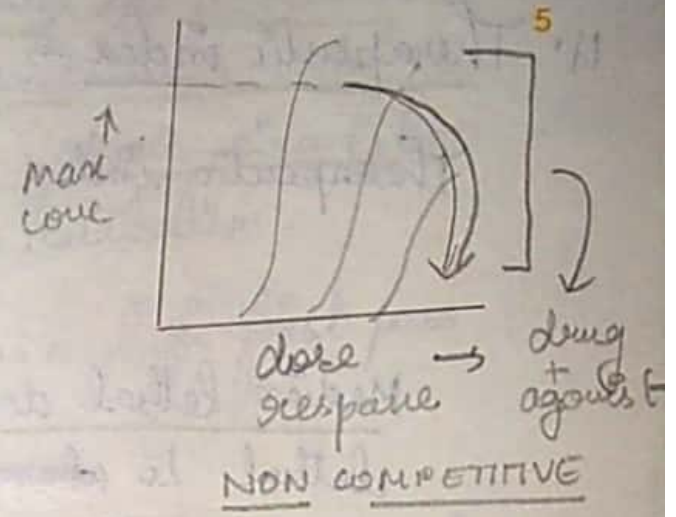
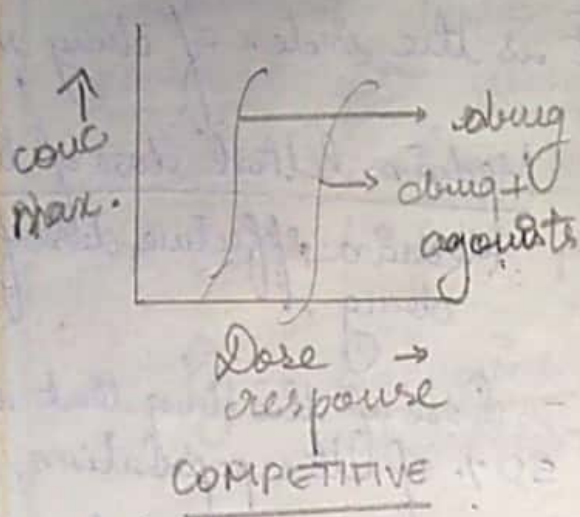
Enzymatic antagonism -

a) Competitive - Agonist and antagonists bind to the same site of the drug. Eg

~~b) Noncompetitive~~



b) Non competitive - Antagonists bind to site other than the active site of the drug.



10.

### Physostigmine

It is a semisynthetic reversible cholinesterase. It cannot be given orally as it is lipid insoluble.

Crosses the blood brain barrier. Produces systemic side effects.

Not preferred in the treatment of myasthenia gravis.

### Neostigmine

It is a naturally occurring reversible cholinesterase. It can be given orally and is lipid soluble.

Neostigmine cannot cross the blood brain barrier. Does not produce many systemic side effects.

Preferred in the treatment of myasthenia gravis.

11° Therapeutic index - It is the index of drug safety

$$\text{Therapeutic index} = \frac{\text{Median lethal dose of the drug}}{\text{Median effective dose of the drug}}$$

Median lethal dose - Dose of the drug that is lethal to ~~about~~ 50% of the population

Median effective dose - Dose of the drug that is effective for 50% of the population.

Eg - Penicillin G has a wider therapeutic index in comparison to phenytoin.

Significance - Higher therapeutic index of drug, greater is the safety of the drug

12°

Transdermal route -

Advantage - Self administration is possible.

~~But~~ Patient compliance is better as it is convenient

Prolongs duration of action of the drug, thus reducing frequency of administration

Disadvantage -

Local irritation at site of application.

Transdermal patch might fall off without notice.

~~Expensive~~ Expensive.

14° First pass metabolism - Drugs on administration, pass through the gut wall into the portal vein and into the liver where they are

metabolized. Certain drugs get inactivated and removed ~~from~~ along with their metabolites before reaching the systemic circulation. This is called first pass metabolism.

2 Eg - lignocaine has a high first pass metabolism.

13° Potency is defined as the amount of drug required to produce the desired response.

Efficacy is defined as the maximal effect of the drug.

15° In organophosphorus poisoning;

General treatment includes -

i) ~~Admission~~ Hospitalisation

ii) Removal of clothing in case of contact with the substance.

iii) Maintenance of airway, breathing and circulation

iv) Gastric lavage can be done.

v) Diazepam can be given to control convulsions

Specific treatment - Atropine (1-2mg) intravenously

given every 5-10 minutes and repeated ~~for~~ till the entire body is atropinized

Atropine removes the systemic effects of the drug.

Oximes - Atropine cannot be given for neuro muscular ~~reversal~~ effects. Oximes are



Cholinesterase reactivators that can be given to the neuromuscular junction.



They prevent dephosphorylation of the esteric site of the enzyme.

H  
↓

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FIRST / SECOND / ~~THIRD~~ INTERNAL ASSESSMENT EXAMINATION

Name : Andrea Fonseca Reg. No. 19D0064  
Class : III BDS Subject : oral pathology Date : 14/07/2022

SECTION

Ans1.

Salivary gland tumors are classified as -

- 1. Benign salivary gland.
  - Pleomorphic adenoma
  - Whartons tumor.
  - oncocytoma
  - Sebaceous tumors.
  - Basal cell adenoma.
  - ~~acinar~~ canalicular adenoma.

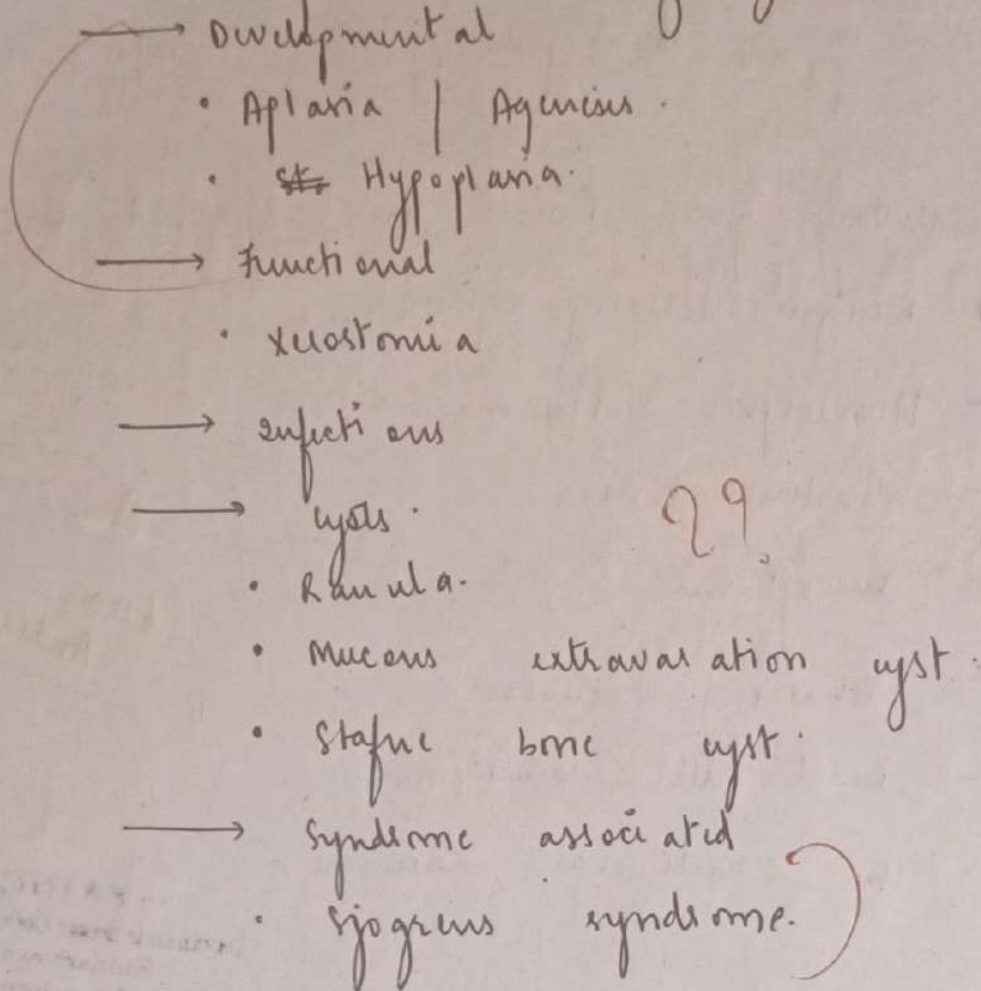
47  
70

Seen  
Andrea Fonseca

H. A.  
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Kumaraswamy Layout,  
Bangalore - 560 078.

- 2. Malignant salivary gland.
  - Mucoepidermoid carcinoma
  - Adenoid cystic carcinoma.
  - Acinic cell adenocarcinoma.
  - Squamous cell carcinoma.
  - low grade polymorphous ucleus adenoma.
  - Myxoid tumors.
  - Basal cell carcinoma.
  - Malignant pleomorphic adenoma.

3. Metastatic lymphomas.
4. Epithelial tumors.
5. non neoplastic salivary gland tumors.



### Mucoepithelioid carcinoma —

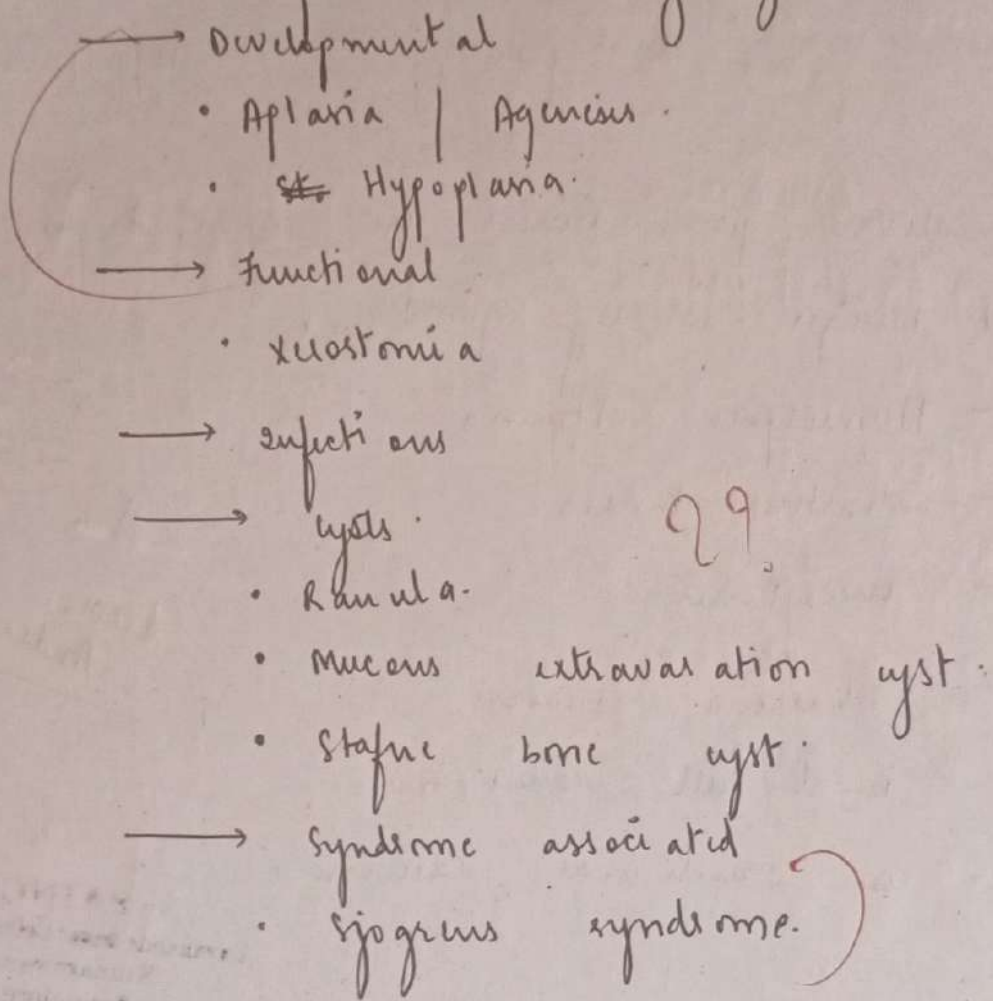
This is a malignant neoplasm that consists of mixed cells.

— There is the presence of epithelial and mesenchymal component.

— Clinical features —

1. occurs in females with a slight predomance over males.
2. Age affecting is middle age 40-60 years.

3. Metastatic lymphomas.
4. Epithelial tumors.
5. non neoplastic salivary gland tumors.



### Mucoepidermoid carcinoma —

This is a malignant neoplasm that consists of mixed cells.

— There is the presence of epithelial and mesenchymal component.

— Clinical features —

1. occurs in females with a slight predomance over males.
2. Age affecting is middle age 40-60 years.

3. Pain may be an associated symptom.
4. Lesions could be asymptomatic with a growth seen causing facial asymmetry.
5. Ionising radiation can be a predisposing factor.
6. Graded as low grade and high grade.

→ low grade.

i) Painless

ii) Swelling

iii) Growth may not extend and be very large.

→ High grade.

i) Painful growth

ii) May be associated with the nerve causing tenderness.

iii) Growth is large.

~~7. Seen~~

7. seen commonly in the mandibular region.

Stains positive with PAS and mucicarmine stain.

8. It is a common malignant neoplasm of the salivary glands along with adenoid cystic carcinoma and acinic cell adenocarcinoma.

### Histopathology

- This is seen as a mixed tumor and it consists of both epithelial and mesenchymal component.
- The epithelial component is made of squamous cells showing prominent intercellular bridges.
- Myxoid component is also present exhibiting myxoid cells which are eosinophilic and have a prominent peripheral nucleus.
- Mesenchymal component contains connective tissue.

This stains positive in :-

1. PAS stain
2. Mucicarmine stain

8. It is a common malignant neoplasm of the salivary glands along with adenoid cystic carcinoma and acinic cell adenocarcinoma.

### Histopathology

- This is seen as a mixed tumor and it consists of both epithelial and mesenchymal component.

- The epithelial component is made of squamous cells showing prominent intercellular bridges.

- Myxoid component is also present exhibiting mucoid cells which are eosinophilic and have a prominent peripheral nucleus.

- Mesenchymal component contains connective tissue.

This stains positive in :-

1. PAS stain

2. Mucicarmine stain

Mucosipidermoid carcinoma is graded as-

1. low grade.
2. Intermediate grade
3. High grade.

### low grade.

- well differentiation
- slight degree of pleomorphism is seen.
- Inflammatory cells may be present.

### Intermediate grade.

- Moderately differentiation.
- Pleomorphism is seen.
- may resemble slightly the tissue of origin.
- Daughter cells may be seen.

### High grade.

- Poorly differentiated.
- large degree of pleomorphism, imbalanced N:C ratio and loss of intercellular junctions are seen.



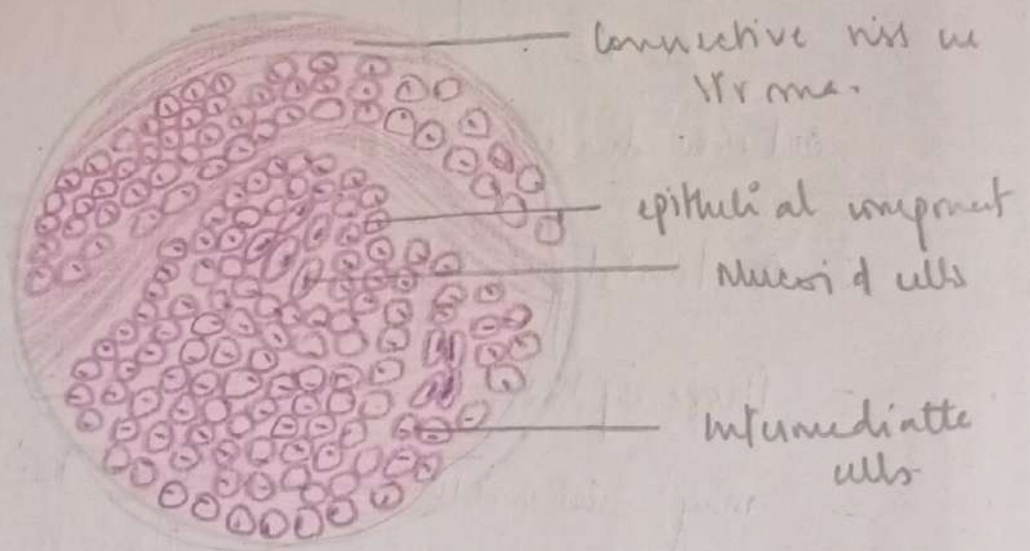
## Grading.

- 0-1 → low grade  
2-6 → intermediate grade  
7-14 → High grade

factors affecting:-

- 1- Mitosis
- 2- Anaplasia
- 3- Abnormal mitotic figures

(7)



low explanation  
about cells

(MEC)

Ans 2. Fibrous osseous lesions are classified

as -

1. Fibrous dysplasia.

2. Cementossious lesion.

→ florid cemento osseous

→ parvic cemento osseous.

3. Fibrous osseous lesions.

→ Paget's disease.

Paget's disease -

- This lesion was first described by Sir James Paget in 1856.

- This is due to abundant bone remodelling leading to osteoclastic activity followed by osteoblastic activity.

- This lesion may be

1) Polyostotic

• involving multiple bones.

2) Monostotic

• involving single bone.

- Polyostotic is a more severe lesion.
- Polyostotic is seen commonly than monoostotic lesion.
- These lesions have increased susceptibility to -
  1. 1,25 dihydroxy vitamin D.
  2. IL - 6
  3. RANKL.

- Paget chromosomes - mutations seen in gene PDB1 and PDB7 seen on chromosomes 1, 5, 6, 10, 18.

Clinical features -

1. occurs in the elderly.  
known to increase with age.  
Starts at 50 - 60 years.
2. Slight female predilection is seen.
3. Pain and deformity is a common finding.

4) Bones affected: -  
femur, tibia, facial bones, ribs,  
clavicle etc.

5) Bony pain may be severe at  
night, this is due to a drop  
in the stress relieving hormone

6) Symptoms - Swelling  
Pain  
Deformity  
Tenderness.

7) Platybassia may be seen.

8) Blood supply over the layer of  
skin is abundant, hence  
the skin may appear warm.

Radio graphic findings.

1. May be polyostotic or monoostotic.

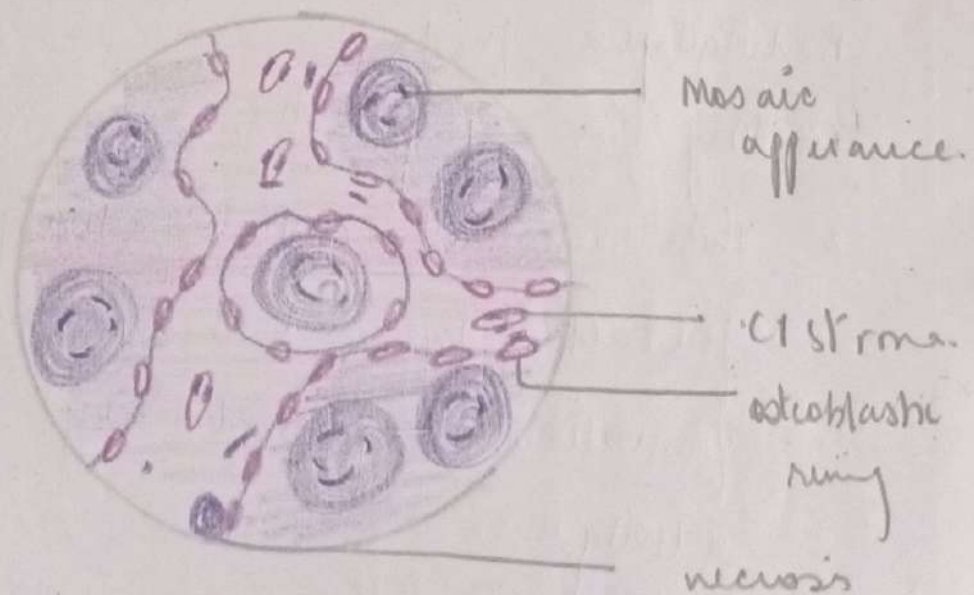
2. There is osteoclastic activity seen  
followed by bone resorption and  
formation, followed by osteoblastic  
activity.

In the lytic phase, there is bone resorption, hence radiolucent areas appear.

In the second phase, there is radiopacity due to bone formation.

### Histological

- frequent osteoclastic and osteoblastic activity is seen.
- this gives a jigsaw appearance also called as mosaic pattern.
- There are areas of necrosis seen.
- osteoblastic rimming is present.



Treatment -

- Surgical excision of the swelling  
- NSAID are given to control the  
pain

- Antibiotics like penicillin are  
administered in case of infections.

GA 1

ms3.

## Trigeminal neuralgia.

- This is a chronic pain caused by the 5th cranial nerve.

- Branches of trigeminal nerve -

1. ophthalmic

2. Maxillary

3. Mandibular.

- It is usually caused due to defects in the second and third branch.

- Symptoms -

1. Stabbing, excruciating pain

2. Burning sensation.

3. nerve involvement is seen.

- Clinical features -

1. Most commonly occurs on the right side of the face.

2. females are more predominant

3. Age group affected → Above 50 years of age.

FIRST / SECOND / THIRD INTERNAL ASSESSMENT EXAMINATION

Name: Andrea Fouca. Reg. No. 19D0064.

Class: III BMS Subject: Oral pathology Date: 12/07/2022

SECTION

Trigger zone

- Alar of the nose
- Vermillion border of the lip.
- Cheeks
- Canthus of the eye.

- These trigger zones when touched caused stabbing sensation.

- Hence, these zones may go unwashed, uncleaned, unshaved for days.

- The pain is so severe that the patients is known to be suicidal.

- The pain appears in sharp bursts appearing from a few seconds to minutes.

- An local stimulus like touch, air pressure, water may activate the trigger zone.



- There is no dental involvement seen.

### Treatment

1. Prong pain is administered, if pain still persists the drug is switched.
2. Carbamazepine may be the choice of drug. Pain is relieved on administration of this drug. If pain is still not relieved, the diagnosis should be rechecked.

(11)

Ans 5:

Histopathology of ameloblastoma.

Clinically it is classified as -

1. Solid | unicystic | multicystic.
2. Metastasizing ameloblastoma.
3. Peripheral | extraosseous.

Histological variants are -

1. Plexiform type.
2. Follicular type.
3. Acanthomatous type.
4. Basal cell type.

5. Granular type.
6. Dermoplastic type.

Unicystic ameloblastoma may be -

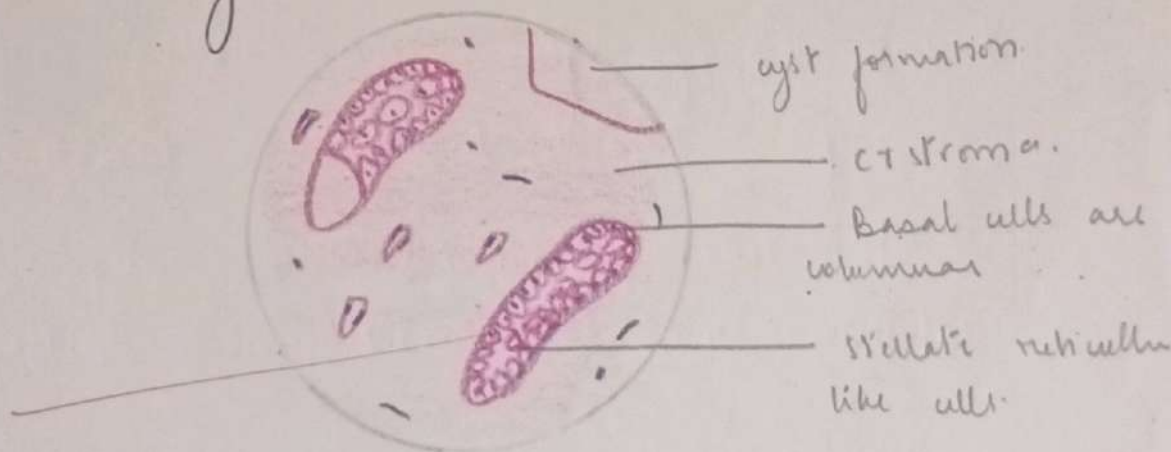
1. mural.
2. luminal.
3. subalveolar.

### 1. Follicular type

- Most common.

- Seen as follicles in the connective tissue stroma.

- These are lined by columnar cells  
centred by stellate reticulum like cells.

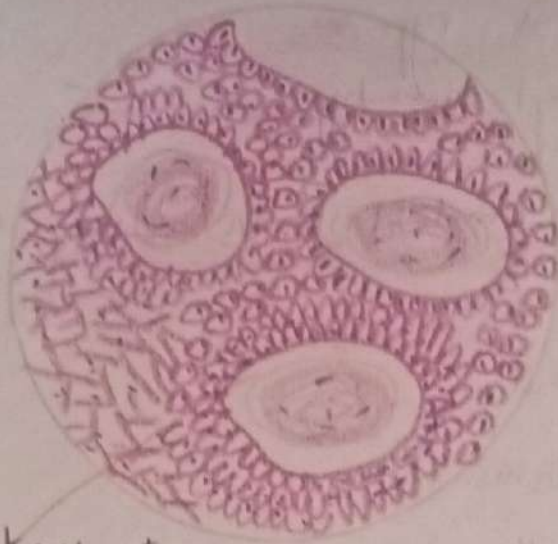


### 2. Plexiform

- Recurrence rate is 16.7%.

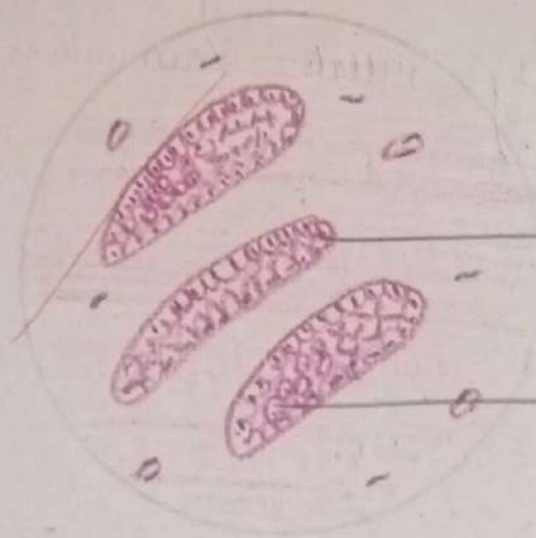
- Layered by two layers of columnar cells.

- Stellate reticulum cells are not so prominent as in follicular type.



3. Acar thomatous type.

- Recurrence rate is 4.5%.
- Metaplasia of the stellate reticulum cells are seen to appear.



4. Basal cell type.

- These closely resemble basal cell carcinoma cells.
- The nucleus is hyperchromatic.
- Presence of stellate reticulum cells.
- This is a rare type.

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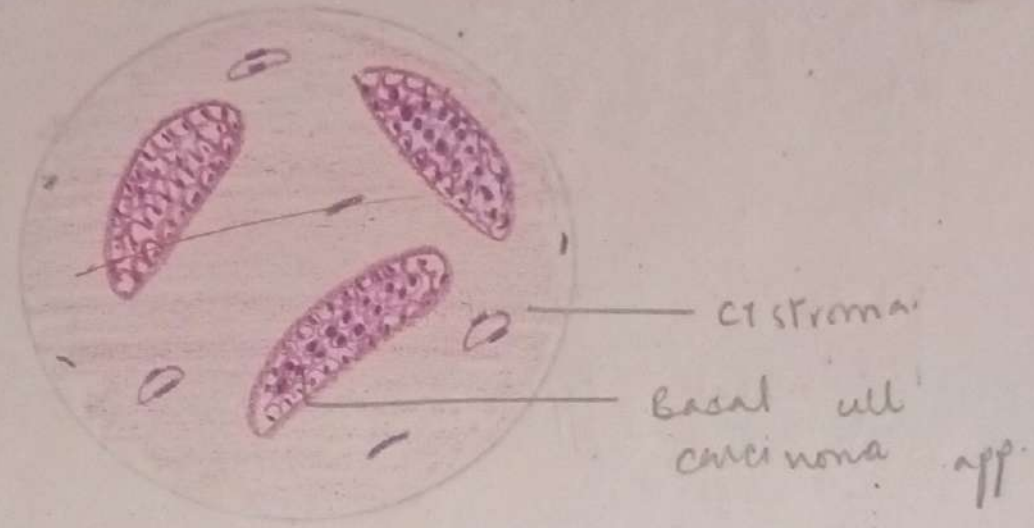
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## FIRST / SECOND / ~~THIRD~~ INTERNAL ASSESSMENT EXAMINATION

Name: Andrea Fouca Reg. No. 19D0064

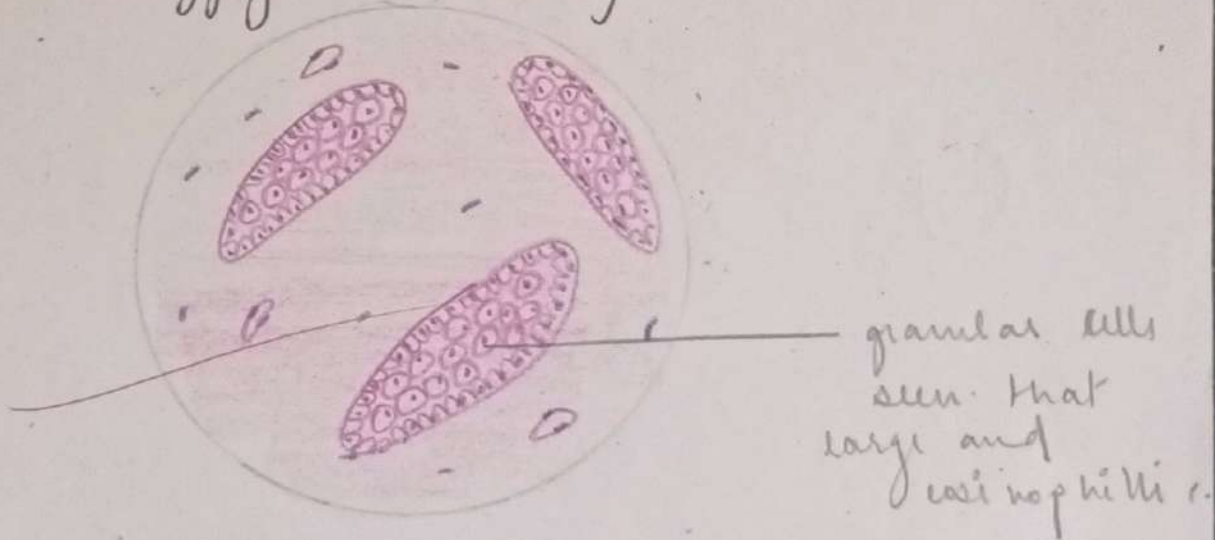
Class: III BDS Subject: oral pathology Date: 12/07/2022

### SECTION



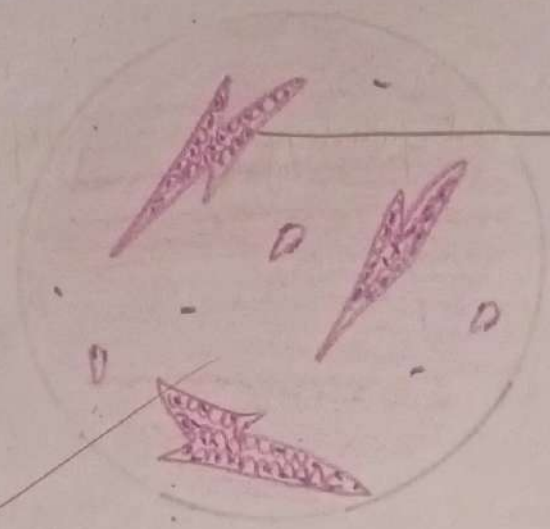
#### 5. Granular type

- These contain large eosinophilic granules. The granular material is thought to be lysosomal aggregates according to ultrastructural studies.



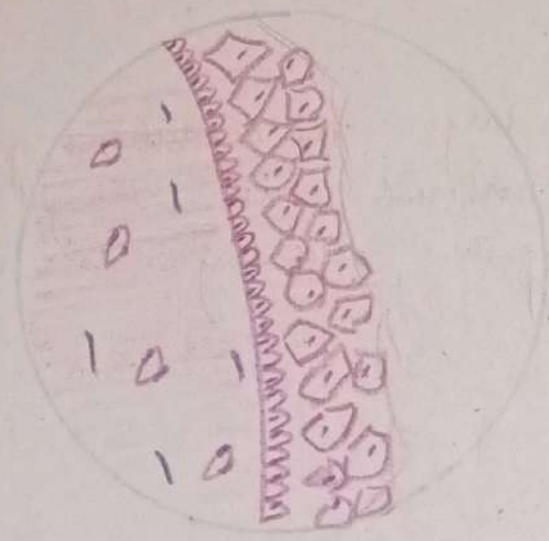
#### 6. Desmoplastic type

- The appearance is 'kite tail' or 'animal tail'
- cells appear to be squeezed out.



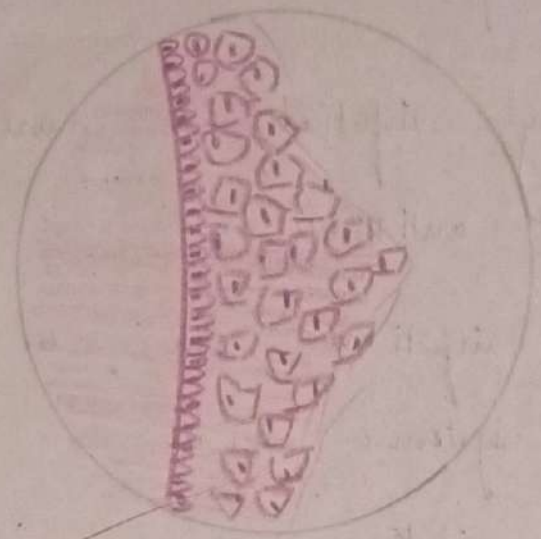
kitt tail or animal tail appearance

Unicystic amoebiasis -  
1. Mucosal type

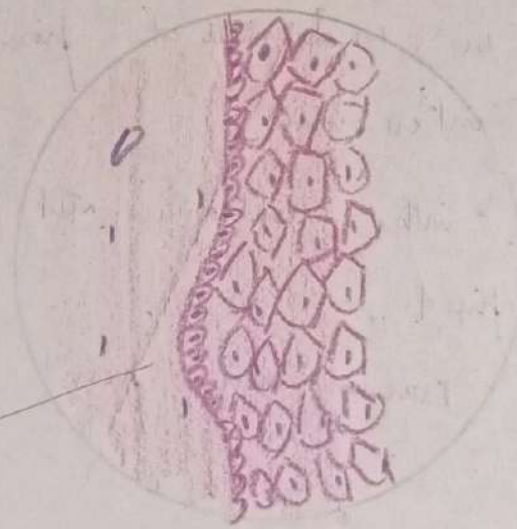


(2)

2. luminal type



3. sub luminal type



Ans 8: Herpes simplex virus is a double stranded DNA virus.

- Types of HSV
  - 1) Type I HSV
  - 2) Type II HSV.

HSV can occur as a primary or a secondary infection.

- The primary infection is more severe, this lacks antibodies
- Primary infection can be associated with a systemic disease.
- Primary infection is ~~so~~ occasionally fatal.
- Secondary infection has the antibodies present, hence it is less severe form.
- HSV can be transmitted from -
  1. sexual intercourse.
  2. contact with contaminated blood, body fluid.
  3. vertical transmission from mother to child.
- HSV can also be ~~at~~ acquired from kissing or sharing straws and cutlery.

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## FIRST / SECOND / ~~THIRD~~ INTERNAL ASSESSMENT EXAMINATION

Name: Andrea Fouca Reg. No. 19D0064

Class: III BDS Subject: oral pathology Date: 12/07/2022

### SECTION

#### HSV - 1.

- Herpes stomatitis
- Herpes labialis
- These lesions are seen to occur in the oral cavity particularly involving the lips.
- These are raised papules or erosions seen on the skin.
- Incubation period ~~3-7~~<sup>20</sup> days.
- The lesions heal leaving erosions in 7-10 days.
- There is usually no scar formation.

#### Herpetic meningoradiculopathy

- This is seen with increased intracranial pressure
- fever.



## Herpetic keratoconjunctivitis

- seen to affect the conjunctiva.
- Affects sclera, iris.
- Inflammation and edema is seen.

## Herpetic whitlow

- seen on fingers
- due to auto inoculation.

Herpes simplex virus is seen in association with pregnancy.

- Ballooning degeneration.
- Inclusion bodies are seen.

This viral infection can be transmitted from a mother to child.

## HSV - 2

- seen to affect the genitals
- affects the cervix, vulva, penis.
- known to cause cervical cancer in females.
- lesions seen on the lip are red and erythematous.

- they are raised lesions
- these lesions are surrounded by a erythematous zone giving it a dew drop on nose petal appearance

lipofuscin bodies are present in the nucleus  
~~of~~ disarranging the nucleolus and chromatin.  
 there is chromatin degeneration.

### Treatment

1. Acyclovir 400 mg  
~~45~~

2. famciclovir (H)

### Ans 7

osteosarcoma is a malignant neoplasm of the bone cells.

- this occurs in males and females with a slight male predilection.

- Age → 40 - 50 years of age.

- osteosarcoma is a serious neoplasm, however, it is not frequently seen in association with the jaws.

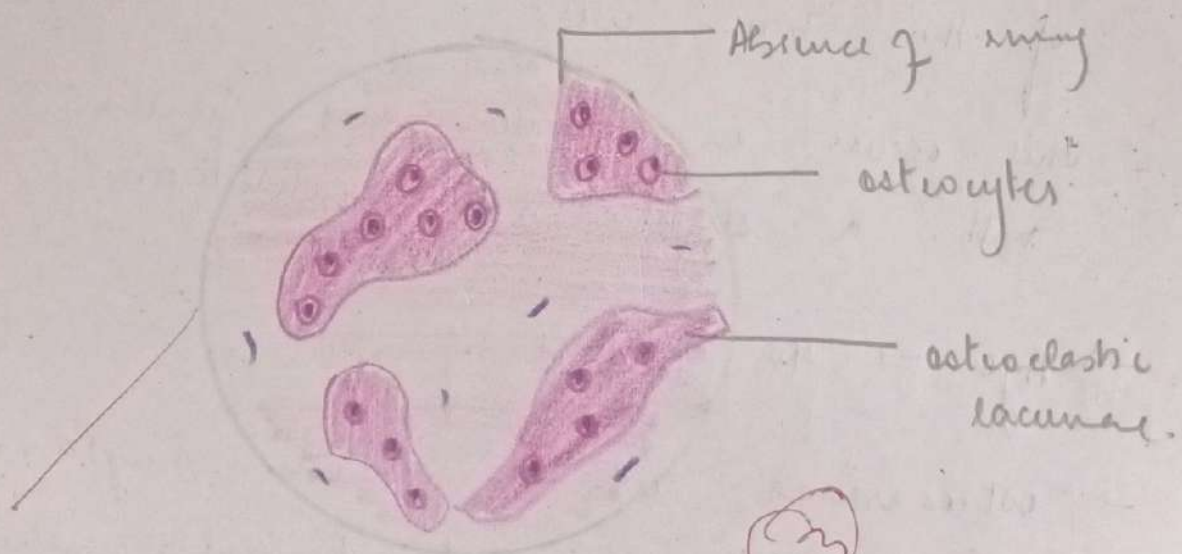
It can occur in the mandible or maxilla.

Radio graphic features -

1. Sunburst appearance is seen.
2. widening of the periodontal ligament space.
3. Cumulus cloud appearance is seen.

Histologic ally -

- There are the presence of abundant osteoclastic cells.
- Mitotic figures are seen.
- osteoblastic cells are reduced in number.



- Presence of giant cells are seen. These cells are known for engulfing.

Andrea Fouca.

III BDS.

oral pathology.

1900064

12/07/2022

(5)

Ans 9.

Verrucous carcinoma is a malignant neoplasm.

Clinical features -

1. Swelling
2. facial asymmetry
3. Pain

4. Lesion may attain a size of a 'cm'.

Systemic lesions -

1. fever
2. lymphadenopathy
3. chills, night sweat
4. rigor

Verrucous carcinoma is also called as 'Ackerman's tumor'

Histopathologically -

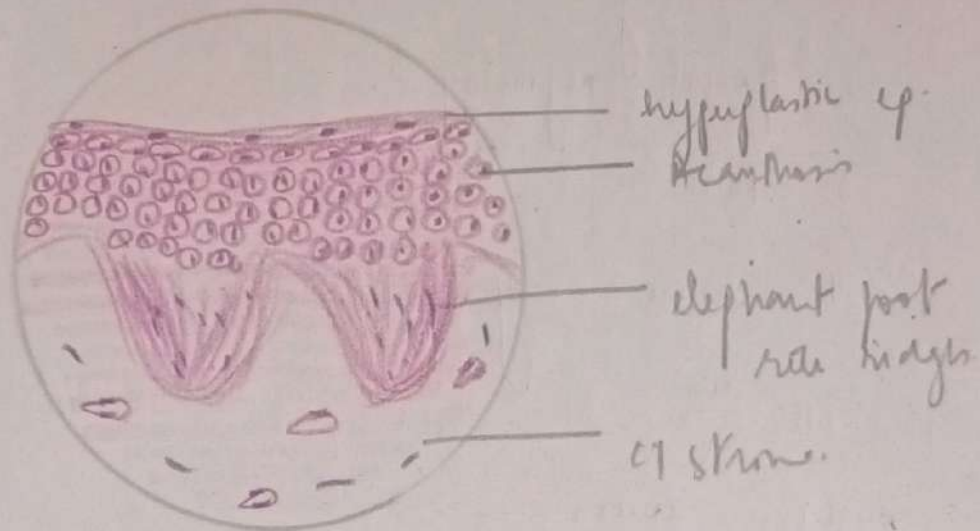
These lesions appear as 'elephant's foot'

The rete ridges are large.

Dysplastic features are seen

Mitotic activity is seen

wide range of pleomorphism, acanthosis  
and altered nuclear cytoplasmic ratio is  
seen.



2/12

Ans 14. Congenital syphilis is an acquired form of syphilis from vertical transmission i.e. mother to child.

Syphilis can be eradicated if it is treated before 4 months of pregnancy.

Child may be -

1. Infected with syphilis.
2. normal.
3. Still birth / abortion.

Hutchinsons triad -

1. Hypoplasia of incisors (screw driver teeth)  
molars (mulberry molars)
2. Interstitial keratitis
3. Defect of auriculo temporal nerve. (2th nerve deafness). (2)

Ans 13.

Attrition is the physiologic wear and tear of the occlusal and incisal surfaces due to contact.

Abrasion is the physiologic reduction in the enamel surface

Erosion is the chemical wear of tooth due to the presence of chemicals or acids. (2)

Ans 12.

Cytology plays a crucial role in the diagnosis of lesions.

- Advantages -
- 1) It is specific.
  - 2) Time is not taken for results (like in cultures that may take months).
  - 3) less invasive.
  - 4) Detects the presence of microorganism based on the location of inoculation.



FNAC

Fine needle aspirational cytology is a recent method used for diagnosis of lesion.

- less invasive
- specific.

Ans 11.

Garré's osteomyelitis.

- osteomyelitis may occur as a result of profound cellulitis.
- It is the inflammation of the bone and the bony marrow.
- There is destruction of the osteoblast vessels in the medullary spaces.

FIRST / SECOND / ~~THIRD~~ INTERNAL ASSESSMENT EXAMINATION

Name: Andria Faria Ica Reg. No. 1900064

Class: III BDS Subject: Oral pathology Date: 12/07/2022

SECTION

Ans 10:

Classification -

1. ~~Sub~~ Intra epithelial.

~~→ supra basal pit~~

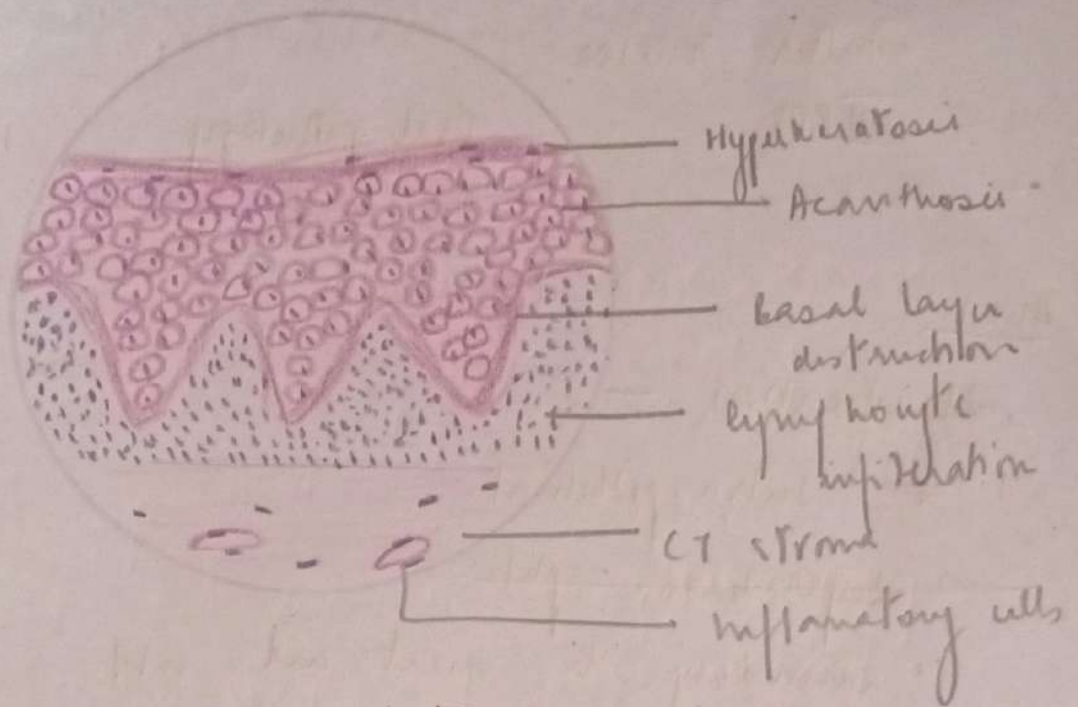
- Secondary to heat and cold.
- P. vulgaris
- P. vegetans
- P. foliaceus
- Darrier's disease
- lichen planus.
- systemic lupus.

2. Epithelial

- Erythema bullosa
- Erythema junctional
- Erythema multiforme.

?





- lichen planus has sub types

1. Atrophic

- lac like structures.

- commonly seen.

2. White

- may resemble leukoplakia.

3. Erosive

- most severe.

- painful.

4. Bullae

- seen with vesiculo bullous formation.

5. Papules

- seen in association with desquamative gingivitis

- Mac Joseph's spaces, this is an artifact seen ~~before~~ below the epithelium. It has no clinical significance.

- Thickening of the basement membrane can be identified with PAS stain.

- These bodies may be seen -

1. Colloidal
2. Civatte

pathogenic

- Colloidal bodies are positive for IgG, C4, C8, fibrin and keratin.

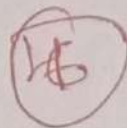
- There is a zone of lymphocyte infiltration seen just below the epithelium.

~~Leishmaniasis~~

Wickham's striae are white, bilateral lesions seen on the buccal mucosa.

Treatment

Corticosteroid therapy.



Ans 4.

Physical injuries to the soft tissue may be due to various reasons -

1. Denture induced

- Denture induced stomatitis is a common injury seen in patients wearing dental prosthesis.

- It could be due to irregular fitting denture or sharp and unsmoothed surface of the denture.

(11) - These sharp pricks may cause the oral mucosa to swell and ulcerate.

→ Osteoradionecrosis is a radiological injury

Ans 6.

Metabolic disorders of the jaw -

1) Acromegaly

- seen in patients with enlarged jaw size.

- This is due to pituitary neoplasm.

(7)

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## FIRST / SECOND / THIRD INTERNAL ASSESSMENT EXAMINATION

Name: Andrea Fonseca Reg. No. 19D0064

Class: III BNS Subject: oral pathology Date: 12/07/2022

### SECTION

Increased jaw size would be due to -

1. Acromegaly
2. Gigantism

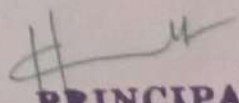
In dwarfism, the size of the jaw is seen to decrease.

- Acromegaly is caused by increased secretion of pituitary hormone.
- In gigantism, the ~~or~~ sacral bones, long bones are enlarged.

Dwarfism is reduced size, due to deficiency of the pituitary hormone.

(1/2)

Osteoporosis  
Rickets  
Osteomalacia

  
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## FIRST / SECOND / THIRD INTERNAL ASSESSMENT EXAMINATION

Name : Ajaly Kauslik Reg. No. : 08

Class : III<sup>rd</sup> BDS Subject : General surgery Date : 26/4/19

### SECTION

10 Mark

1) Write in detail abt pleomorphic adenoma, clinical signs & symptoms & management.

5 Mark

- 2) Non Hodgkin lymphoma.
- 3) Types of haemorrhage.
- 4) Thyrotoxicosis.
- 5) Mumps.

2 Marks

- 6) Lymph nodes in head & neck.
- 8) Stenson's duct.
- 9) Sialolith.
- 10) Facial nerve & its branches.
- 7) Rk Frey's syndrome.

28

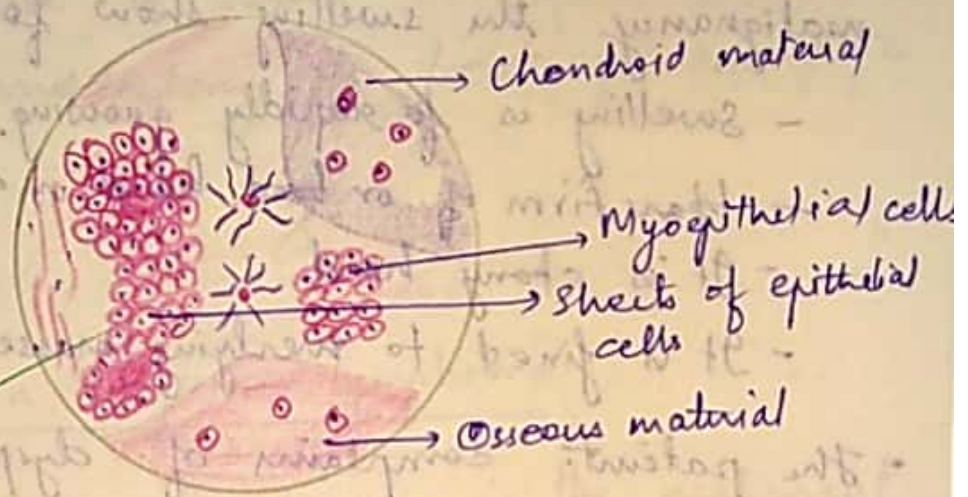
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## Ans: 1) Pleomorphic Adenoma

- Pleomorphic adenoma is a epithelial tumor.
- Pleomorphic adenoma is a common salivary gland tumor.
- It is also called mixed tumor or oncocytoma.
- Pleomorphic adenoma is a benign salivary gland tumor.
- Pleomorphic adenoma commonly occur on palate.

### Pathology :

- Pleomorphic adenoma  $\Rightarrow$  histologically consists of
  - Epithelial cells
  - Myoepithelial cells.
  - Pseudocartilage.
  - Mucoid material.
  - Fibrous tissue
  - Osseous material.
- Epithelial cells proliferates in the form of sheets & cords. These are arranged in acini or cords.
- Myoepithelial cells proliferate in the form of sheets. Myoepithelial cells are the spindle cells.
- Pleomorphic adenoma consists of mucoid material & osseous material.
  - It has pseudocartilages.
  - It also consists of fibrous tissue.



### • Clinical features :-

- Pleomorphic adenoma most commonly occur on palate.
- It may also occur on buccal mucosa, lips etc.
- It clinically presents as painless swelling.
- The swelling is usually slow growing.
- The swelling is :-
  - Painless
  - Slow growing.
  - Occur in front, below & behind of the ear to tragus of ear.
  - The ear lobule appears as raised.
  - The retromandibular groove is obliterated.
- The overlying skin appears to be stretched and is shiny.
- The swelling is not fixed to skin or masseter.

- If the pleomorphic adenoma transform into malignancy the swelling show following characteristics

- swelling is rapidly growing.
- Has firm or hard consistency.
- It is stony hard.
- It is fixed to overlying masseter.

- The patient complains of dysphagia.
- The salivary secretion is reduced.
- The patient have xerostomia.
- The recurrent rate is high, so we need to Management only superficial parotidectomy.

- In severe cases it causes facial nerve palsy.
- Patient feel difficult in opening of mouth.

### • Management :

- For benign pleomorphic adenoma, we do superficial parotidectomy.
- Superficial parotidectomy is done to:
  - Prevent any injury to the facial nerve
  - To prevent facial nerve.

- ~~for mal~~ In case of malignant pleomorphic adenoma, we conduct radical parotidectomy.



- Enucleation is contraindicated, as the recurrent rate is high.
- So we do parotidectomy to treat pleomorphic adenoma.

8

## Ans 2) Non Hodgkin's lymphoma

Non Hodgkin's lymphoma is the malignant neoplasm of lymphoreticular system.

Cause

Etiology :

i) Age & Sex:

- Small lymphocytic lymphoma - elderly people.
- follicular lymphoma - mid age adult.
- Burkitt's lymphoma - children & young adult.

Classification:

i) Low grade :-

- Small lymphocytic lymphoma.

ii) Intermedial grade :-

- follicular small cell lymphoma.

iii) High grade :-

- Large cell follicular lymphoma.
- Burkitt's lymphoma.

## • Clinical classification:

- T-cell lymphoma
- B-cell lymphoma

## • Clinical features:

- It mainly occur in elderly people.
- It mainly occur in males.
- Generalised lymphadenopathy present.
- ~~It~~ The lymph nodes are enlarged & show matting.
- ~~It~~ Intermittent fever is present.
- Skin rashes may occur.

## • Management:

### • Investigation:

- complete blood picture.
- Routine urine examination:-  
Blood uric acid levels are ~~high~~ <sup>raised</sup> in case of non-hodgkin lymphoma.
- Chest x-ray.
- ~~Abd~~ Abdomen (Fiscan).
- laryngoscopy.

### • Treatment:-

The type of treatment depends on the degree & grade of lymphoma.

Ans

• Chemotherapy is used:-

drugs used are :- CHOP &  
cyclophosphamide.

• Radiotherapy can be done. 4

Ans-3) Types of haemorrhage

I) Depending on the nature of vessels involved:-

a) Arterial haemorrhage:-

- Bright red in color.

- It jets out

- Palpitations can be seen.

- It can easily be controlled.

b) Venous haemorrhage:-

- Dark red in color.

- Never jets out but oozes out.

- Cannot be controlled.

c) Capillary haemorrhage:-

- Red in color.

- Slowly oozes out.

II) Depending on the timing of haemorrhage:-

a) Primary haemorrhage:-

It occurs at the time of surgery.

b) Reactionary haemorrhage:-

Occurs after 6-8 hrs of surgery.

Cause: Hypertension

- Sneezing.
- Coughing.
- Retching.

Example: - Superior thyroid artery shear tears

c) Secondary haemorrhage:

- Occurs after few days of surgery.
- It is due to infection which eats ~~sets~~ away the suture material causes sloughing of vessel walls.

III) Depending on the Duration of haemorrhage:

a) Acute haemorrhage: - occurs immediately after injury.

Eg: ~~Occurs~~ Oesophageal variceal bleeding due to portal hypertension.

b) Chronic haemorrhage: - occurs over a period of time.

Eg: - Haemorrhoids/piles or chronic duodenal ulcer.

IV) Depending on nature of bleeding: -

a) External bleeding: ~~+~~

Eg: Epistaxis

b) Internal bleeding.

Eg: Splenic injury.

## Ans. 4) Thyrotoxicosis:-

Thyrotoxicosis is a complex disorder due to increased levels of Thyroxine hormones. and it manifests clinically all the signs & symptoms of body  
- It commonly occurs in female.

### Causes:-

i) Primary thyrotoxicosis:- (Graves disease, Exophthalmos goitre)

ii) Secondary thyrotoxicosis:-  
secondary in MNH.

iii) Other Solitary Toxic solitary nodule.

iv) Other causes:-

a) Thyrotoxicosis factitia  
Due to overdosage of Thyroxine.

b) Jod- Basedow's thyrotoxicosis:-  
Iodine induced thyrotoxicosis.

c) Initial stage of thyroiditis.

d) Neonatal thyrotoxicosis.

### Clinical signs:-

- Uniform swelling of neck.
- Eye prominence.
- Irritability.
- Tremors
- Restlessness.
- Excitability.

### i) Neck signs:-

- Uniformly enlarged.
- Surface is smooth.
- Warm to palpate - vascular nature of gland.
- Soft in consistency.
- Bruits are heard - on auscultation.

### ii) ~~CNS~~ signs: CNS signs:-

- Tremors when tongue is protruded.
- Tremors on outstretched hands.
- Hyperkinetic movements.

### iii) & CVS signs:-

- Pulse is raised :- Tachycardia.
- Palpitations & extrasystoles.

### IV) B Myopathy:-

weakness of limbs.

### V) T Myxedema:-

- Non pitting edema.
- Clubbing.
- Hand skin moist & hard.

### Management:-

#### Treatment:

- Sodium perchlorate.
- Carbamazepine.
- Propranolol.

## Aug. 5) Mumps :-

- Mumps is a viral infection.
- It is also called as acute parotitis.
- Acute parotitis is the acute inflammation of the parotid gland, due to bacterial or non bacterial cause.
- It can be unilateral or bilateral.

### Causes:-

#### Viral infection:

Mump. virus cause is the most common cause of acute parotitis.

#### Bacterial infection

- ↓ sed salivary secretion due to :-

- Poor oral hygiene

- Poor hydration.

- Enteric fever

- Post operative period.

### Clinical features:

- The patient show swelling of parotid gland in the post operative ~~per~~ periods. The swelling is with pain & high fever with chills & rigors. It indicate that it is parotid abscess.

- Parotid swelling is due to inflammation. The swelling is covered by parotid fascia, so it take up the shape of parotid.

- Mumps most commonly occur in children.

• Management:

i) Conservative line management :-

when there is no abscess, the swelling is in the stage of cellulitis, conservative line of management is used.

- Maintain good oral hygiene, use of mouth washes with potassium permanganate.
- Maintain good hydration.
- Use of antibiotics against staphylococcus aureus like cloxacillin.

ii) Surgical treatment :-

when there is pus formation we have to use surgical method in order to drain the pus. It is done under general anaesthesia.

- Vertical ~~axis~~ incision is made in front of tragus & blunt haemostat is used in order to prevent the facial nerve.



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FIRST / SECOND / THIRD INTERNAL ASSESSMENT EXAMINATION

Name: Anjali Reg. No.: 08

Class: III<sup>rd</sup> BDS Subject: General surgery Date: 20/4/17

## SECTION

Ans 8) Stenson's duct:-

- Stenson's duct is the duct of major salivary gland i.e. parotid gland.
- The secretion of st is mucous.
- Stenson's duct usually opens near the maxillary 1<sup>st</sup> & 2<sup>nd</sup> molar.

Ans 6) Lymph nodes of head & neck:-

- Occipital lymph node.
- Post auricular lymph node.
- Pre auricular lymph node.
- Submandibular lymph node.
- Parotid lymph node.
- Sublingual lymph node.
- Deep cervical lymph node.
- Submental lymph node.
- Jugulothyroide lymph node.

Ans 9) Sialolith:-

- Sialolith is a condition in which there is deposition of calcified material in the salivary duct. which cause the obstruction in salivary duct & prevent the secretion of the saliva.

- It cause ~~ex~~ xerostomia - of pain of.
- It cause pain when the patient eats.

Ans. 10) facial nerve & its branches:-

Facial nerve is a motor nerve. It is divided in 5 branches.

- i) Temporal branch.
- ii) Zygomatic branch.
- iii) Buccal branch.
- iv) ~~Marg~~ Marginal mandibular branch.
- v) Cervical nerve.

Ans. 7) Frey's syndrome:-

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## FIRST / SECOND / THIRD INTERNAL ASSESSMENT EXAMINATION

Name: Srinivas Nalk Reg. No. 18DD104

Class: III BDS Subject: General Medicine Date: 23/08/2021

### SECTION

43  
70

① Hypertension is defined as one increase in blood pressure due to increased arterial pressure that affects one functionally of one target organ.

	systemic	Diastolic
→ <u>path</u>		
pre - hypertension	< 80/120 mmHg	< 80 mmHg
stage I hypertension	120 - 140 mmHg	80 - 99
stage II hypertension	> 140 mmHg	> 100 mmHg
hypertension	80 mmHg	120 mmHg

→ causes:

It can be caused due to:  
- familial: it can run in family.

← Malignant

- reason can be unknown.
- Anxiety, depression.
- Alcoholism
- cardiac problems: myocardial infarction.
- pulmonary dysfunction
- hypothyroidism
- nephrotic syndrome.
- Wilson's disease.
- smoking

H  
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clinical features are:

- fatigue
- anorexia
- dizziness
- pale skin
- pale tongue
- increased secondary infection
- nausea
- heavy breathing
- sweating

→ Investigations:

- thorough history must be taken
- physical examination:  
during this the patients B.P might be more than 180/80 mm/Hg.  
the machine used for this is sphygmometer.
- look for any underlying disease.
- routine examination must be done like urine, Blood etc.
- ECG can be ~~perform~~ checked.

→ Treatment:

General measures } Non pharmacological method:

- salt must be reduced in diet.
- oily food must be reduced.
- lifestyle must be change.
- increased protein diet must be included.
- exercise
- yoga
- walk
- drink more water.
- drugs metabolized in the liver must be prevented
- drinking etc.

## Pharmacological method :

→ Diuretics :

① Thiazides : chlorothiazides  
hydrochlorothiazides

② loop diuretics : furosemide  
buremide

③ potassium sparing diuretics : Amiloriflone

Other drugs like spironolactone can also be given

→ Antihypertensive drugs like :

① ACE inhibitors : captopril  
enalapril  
ramipril  
lisinapril

② calcium channel blockers : Nifedipine  
Amlodipine

③ Nitrate

④ diuretics, digoxin → for cardiac related like myocardial infarction

⑤ antianginal drugs

⑥  $\beta$ -blockers : propranolol

⑦  $\alpha$ -blockers : prazosin

7

## ② Diabetic ketoacidosis.

It is an emergency condition of type 1 DM.

① Random blood glucose levels  $\geq 200$  mg/dl.

② Post prandial blood glucose levels

③ Fasting blood glucose levels.

### Clinical features:

~~In this condition there is increased ketone bodies in urine.~~  
- Inability

In diabetic ketoacidosis:

when the glucose storage gets used up completely the fat gets used up which gets converted into ketone and does not get used up or enter the cycle.  
So accumulation of ketone bodies leads to this condition.

→ CF:

- persistence of ketone bodies in urine.

- ketouria is seen.

- many complications are seen.

- signs and symptoms.

fatigue

bleeding

healtry is inadequate

nausea

photophobia

~~st~~ dizziness

swelling of feet.

confusion

increased anorexia.

In extreme cases → coma and death.

→ Investigations:

- Blood glucose levels must be checked

there is increased in blood glucose level.

## urine examination:

ketone bodies are present.

- presence of systemic infection can also be checked.

## → treatment:

- ~~Anti diabetic~~ In emergency condition: patient is hospitalized and given i.v.

- ~~Anti diabetic~~ drugs:

Repaglinide

Sulfonylureas

Metformin etc. can be given.

- to prevent secondary infection → antibiotic prophylaxis can be given.

→ ~~Anti diabetic~~

## Non-pharmacological:

- change in lifestyle
- decreased sugar intake
- walking, yoga etc..

6 1/2 ✓

## SHORT ESSAY

### ③ Ascites:

It is defined as the accumulation of fluid in the peritoneal cavity.

#### → causes:

- ① because of inflammation → increase in the capillary permeability → that allows the fluid to escape into the tissue space.
- ② this leads to decrease the absorption of fluids.
- ③ venous obstruction and lymphatic drainage can also cause ascites.

#### → clinical features:

- hepatic encephalopathy.
- due to the fluid accumulation the diaphragm is pushed which can lead to tachypnoea and orthopnoea.
- shift of the cardiac apex.
- on percussion resonating sound due to fluid accumulation.
- ~~the~~ sordae dullness is seen.
- cardiac murmurs are heard.
- fluid thrill etc.
- person is weak, fatigue, nausea, headache, etc.
- abdominal distension with or without pain.

#### → Investigation:

- imaging: to see the peritoneal cavity.
- fluid examination.
- Blood examination.
- check for oesophageal varices.
- laproscopy etc.



#### 4) typhoid fever:

typhoid fever is caused by one organism *Salmonella typhi*.

there are three types *Salmonella typhi* A ✓  
*Salmonella typhi* B.  
*Salmonella typhi* C.

mode of transmission: through stool.

#### → clinical features:

- person has periodic fever
- person looks pale.
- fatigue
- thirstiness
- pale skin
- difficulty in eating.
- malnutrition.
- cough
- rashes are seen.

#### → investigations:

~~① diagnosis: it is mainly~~ ✓

- ① stool culture: one organism is mainly found in ~~the~~ stool.
- ② appearance in blood is after few months.
- ③ bacterial culture: gram negative organism.
- ④ Widal test: precipitation of ~~the~~ in the bottom of the test tube.
- ⑤ routine examination of blood, stool, and urine can be done.
- ⑥ to check for one organism → we can check under the electron microscope.

## Treatment:

- Antibiotic prophylaxis.
- antibiotics like metronidazole, cephalosporins, & Nitroimidazole etc. can be given.
- keep your surroundings clean.
- sterilize
- use antiseptics to clean floors etc..
- complications:
  - secondary infection.
  - diarrhoea
  - cardiac problems.
  - pulmonary problems.
  - renal problems.

etc..  
3/2

## ⑤ hypothyroidism:

- hypothyroidism is decreased. it is a condition when the thyroid level

- can be seen in any age group.

causes: it can be partial. decrease in the production or abnormality in the formation of thyroid hormone.

### clinical features:

- loss of appetite
- weight loss
- ~~fat~~ fatigue
- intolerance
- nausea
- vomiting
- emetion
- pale skin

- menstrual problems
- anaemia etc.

### investigations:

- thyroloid level test:
  - ~~TSH~~ ~~T<sub>3</sub>~~ ~~T<sub>4</sub>~~
  - levels of thyroloid stimulating hormone must be checked.
- blood examination:
  - shows reduced RBC count
  - ~~#~~
- T<sub>3</sub> & T<sub>4</sub> levels should be checked.
- Routine examination.

### Treatment:

- proper diet.
  - reduced salt intake
  - Routine check up
  - ~~propylthiouracil~~
  - drugs that helps in increasing thyroloid levels.
  - etc.
- 3 ✓
- potassium and sodium supplements
  - vitamin supplement.

### complications:

immunity is reduced that leads to secondary infection.

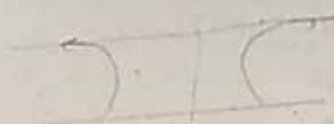
### b) tetany

tetany → it is a condition of muscle spasm, where the muscle becomes rigid.

- this leads to restriction in movements of the body.

### Latrogenic:

when the muscle takes time to relax in one cycle.



actin and myosin filaments  
 they go and bind and then take time to relax.

→ clinical features :

- muscle spasms
- difficulty in walking
- difficulty in writing
- difficulty in holding things
- body ache
- fatigue
- weakness

→ treatment :

muscle relaxants : succinyl choline  
 d-tmc  
 decuramium

- vitamin supplements ✓
- calcium supplements ✓
- physiotherapy
- pain killers → NSAIDS
- corticosteroids
- etc...

⑨ Anaphylactic shock :

- it is a type 2 hypersensitivity reaction.

pathogenesis :



- this happens due to allergy.

Types of allergens: fish  
pollen dust  
emulacens  
fragrance  
etc. ...

- these allergens can aggravate one anaphylactic shock.

Allergens  $\longrightarrow$  binds to the mast cell : dose of All

Pathogenesis:

we see 3 stages:

stage of sensitization

stage of latency

shock stage

Allergens binds to mast cells and produces antibodies.  
this is nothing but aggregated form of antigen antibody complex.

Clinical features:

- difficulty in breathing
- can lose his consciousness
- sweating
- irritability etc.

Treatment:

- 1) maintain Airway, Breathing, circulation.
- 2) then give intra venous saline.
- 3) Adrenaline.
- 4) salbutamol  $\rightarrow$  Bronchodilators.
- 5) Antihistamines

etc. ...

3

### ⑧ Haemolytic Anaemia:

In this there is increased ~~the~~ in the lysis of RBC.

It can happen due to:

increased bleeding

Splenomegaly

malnutrition

etc...

### Investigations:

- the RBC's blood count is increased

- MCV, MCH, MCHC all are increased

- Platelet count increased due to abnormal bleeding

- leukocytes count increased in case of secondary infection.

- Fe level increased.

- they appear as interocytic cells.

### treatment:

2 Blood transfusion.

### ⑨ Depression:

~~one of the most~~  
person.

A psychological state of a

- can be due to ~~fast~~ social problems, like parental pressure, peer pressure, failure in life, trauma etc..

- the person in such cases has frequent

anxiety, palpitation, increased sweating, does not talk to anyone, crying and can have

suicidal thoughts as well  
management:

Non pharmacological:

- counselling
- family support
- peer support
- indulging oneself in hobby etc. -

Pharmacological:

- Anti depressant:  
tricyclic antidepressants  
MAO inhibitors  
pandine  
chlorpromazine  
etc.

3

⑩ Migraine:

Severe form of headache ✓

- Migraine can be classical type ✓
- It can be associated with an underlying cause or not.

→ Key clinical features:

- ~~with~~ throbbing kind of headache ✓
- blurring of vision ✓
- fatigue ✓
- nausea ✓
- vomiting ✓

- migraine is episodic.
- It can last for days.

→ Etiology:

can be familial.

⑩ Prodromal symptoms may be seen before the onset.  
They can't tolerate loud music and bright light.  
Pain increase in sun.

management:

- symptomatic relief can be given.
- ~~beta-blocker~~ ~~diuretic~~ Barbiturates can be given.
- NSAIDs can be given.
- chlorpromazine etc. can be given. ✓

3

⑪ Pulmonary oedema  
hypoproteinaemia  
renal infections.  
Hepatomegaly

1

⑫ Rifampicin  
Ethambutol  
Pyrazinamide

2

⑬ Iphenytoin  
Sodium Valproate  
Carbamazepine

2

⑭ - increase protein content  
- ketone bodies  
- crystal bodies

1

⑮ - kala azar  
- Anaemia

1

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Dayananda Sagar College of Dental Sciences  
Kumarswamy Layout,  
Bangalore - 560 078.



## FIRST / SECOND / THIRD INTERNAL ASSESSMENT EXAMINATION

Name : KOMAL SINGH ..... Reg. No. : 17D1624

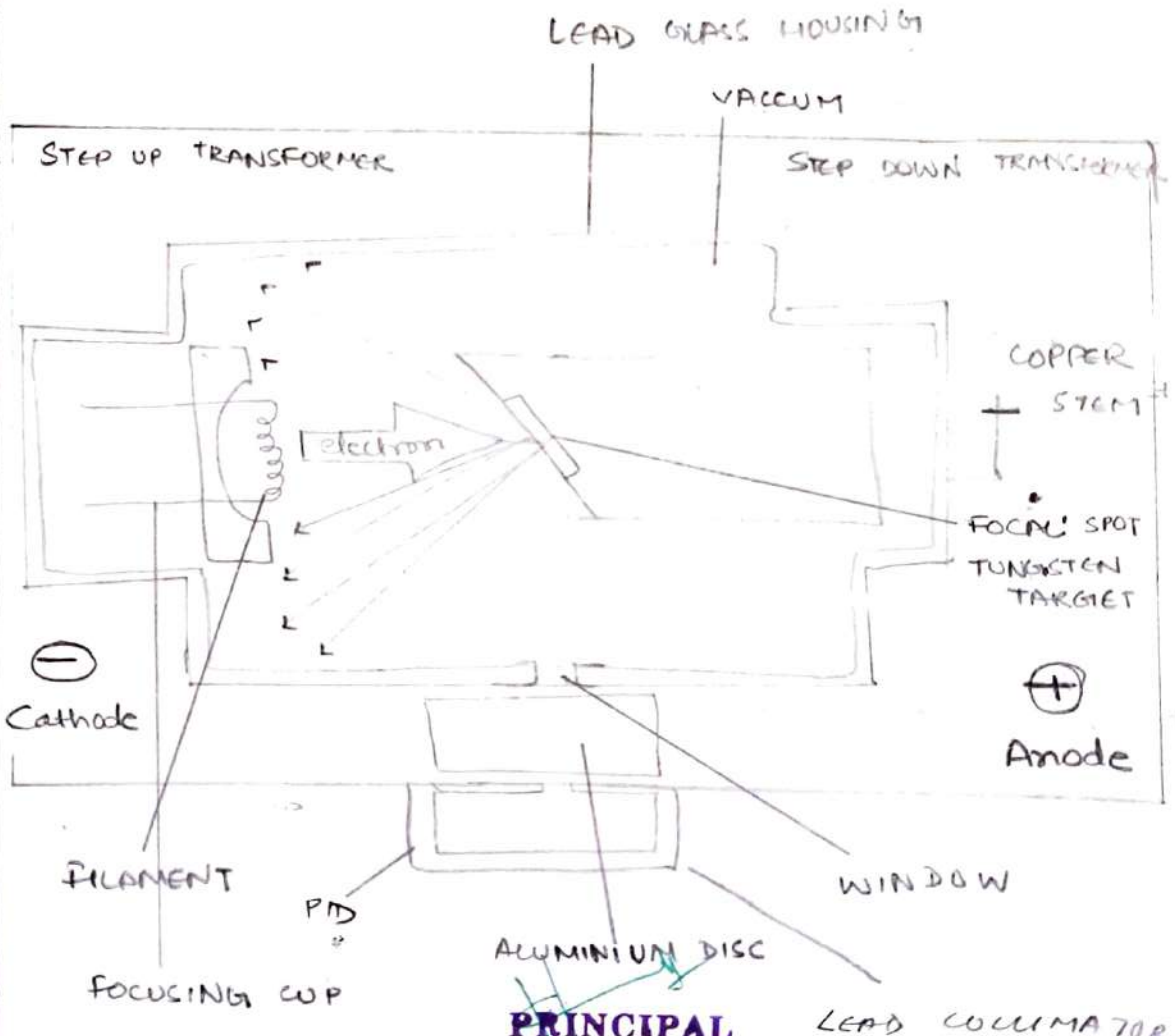
Class : IV BDS ..... Subject : ORAL MEDICINE ..... Date : 15.2.21

### SECTION

46  
90  
A.C.

### LONG ESSAY :-

1.) When the electrons decelerates or its stoppage takes place, there is the production of photons.  
X-ray tube is the heart of the x-ray machine, and it helps in the production of x-ray.



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Fig : X-RAY TUBE

~~The component of the x-ray are :-~~

~~i) lead glass housing~~

~~ii)~~

The component of the x-ray are :

- (i) Leaded glass housing
- (ii) Positively charged cathode
- (iii) Positively charged anode

Leaded glass housing :-

> This prevents the x-rays to denote its all direction (or escape the x-ray in all direction).

> X-ray tube consist of the window, that window exist the x-ray & pass it through, lead collimator, PID & aluminium disc.

Negatively charged cathode :-

& components :

- (i) filament
- (ii) focusing cup

Its aim is to produce electrons,

Filaments - filaments gets heated up and release of electrons takes place.

focusing cup - it directs the focusing of the x-ray in a particular direction.

### Positively charged anode :

It consists of :

(i) Tungsten target - Its aim is to release the photon from the electrons.

(ii) Copper stem - The heat produced during the conversion of photon is exit from conduction and the oil in the x-ray tube takes it.

### Transformers :

Its function is to maintain the voltage in the x-ray tube.

(1) Step up transformer

(2) Step down transformer

(3) Autotransformer

↓  
It is used for minor fluctuation that takes place.

Step up transformer - It increases the voltage from ~~300~~ 110-220 V to 65,000 to 100,000

Step down transformer - It decreases the electric voltage from 110 - 220 V to 3-5 V.

### \* Timer

- Timer completes the circuit with step up transformer ..

- It controls the time for high voltage current to go.

### \* Tube rating

### \* Duty cycle

It determines the frequency of the exposure time.

The circuit can be :

- ① High voltage circuit
- ② Low voltage circuit

### ④ PRODUCTION OF X-RAYS :

Once the X-ray machine is switched on, the current passes through the control

panel from the wall outlet.

2. Current reaches the x-ray tube, which in turn goes to filament (negatively charged cathode), there the voltage reduction takes place to 3-5 v.

3. ~~then~~ The filament gets heated up & generates electrons.

The electrons remains in its cloud state, until the voltage of the current is reversed.

4. The focusing cup helps to beam the electron in a direction.

5. Electron enters the anode, hits the tungsten target and release x-ray photons from the

3. The filaments gets heated up and there takes a phenomena called as thermionic emission.

thermionic emission helps converts the x-ray energy into the electrons in 3-5 v voltage.

The electrons remains in the cloud state, until the voltage of current is reversed.

4. focusing cup helps to beam the electron in a particular direction.

5. Electrons <sup>enters</sup> ~~hits~~ the anode, hits the tungsten target and there the conversion of electrons to the x-ray photons takes place.

6. Heat is generated while the procedure takes place, heat is emitted by the copper stem by conduction. The insulating oil absorbs the heat.

7. X-rays can be scattered, lead glass housing is used to prevent the escape of the x-ray.

It then, passes through the aluminium disc, lead collimator and PID.

There are two methods:

① Bremsstrahlung x-ray

② Characteristic x-ray

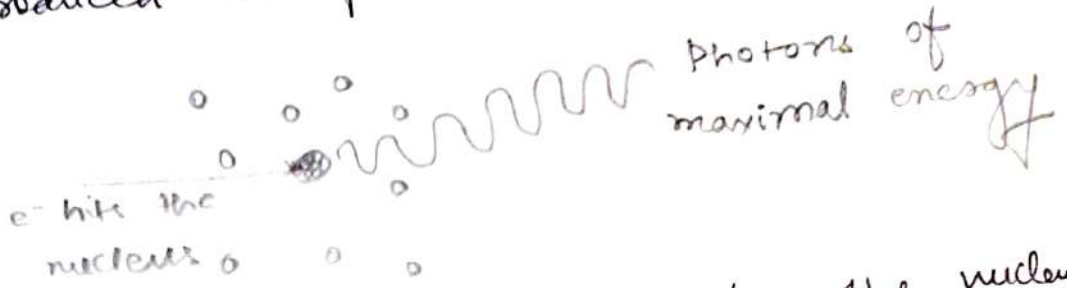
Bremsstrahlung x-ray rationale is when there is deceleration or stoppage of the electron, there is the production of photon.

Two cases can take place,

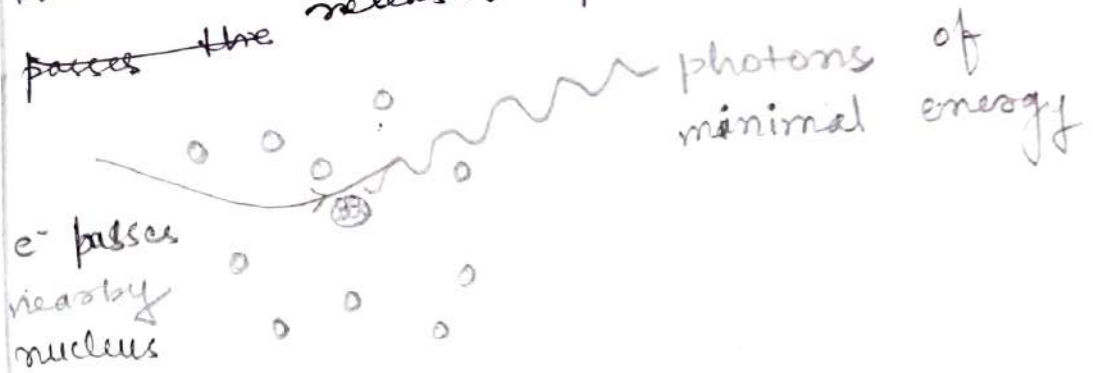
① If the electrons ~~the~~ hit the nucleus

② Electrons passing nearby nucleus.

If the electrons hit the nucleus, the total of the kinetic energy will be produced as photons.

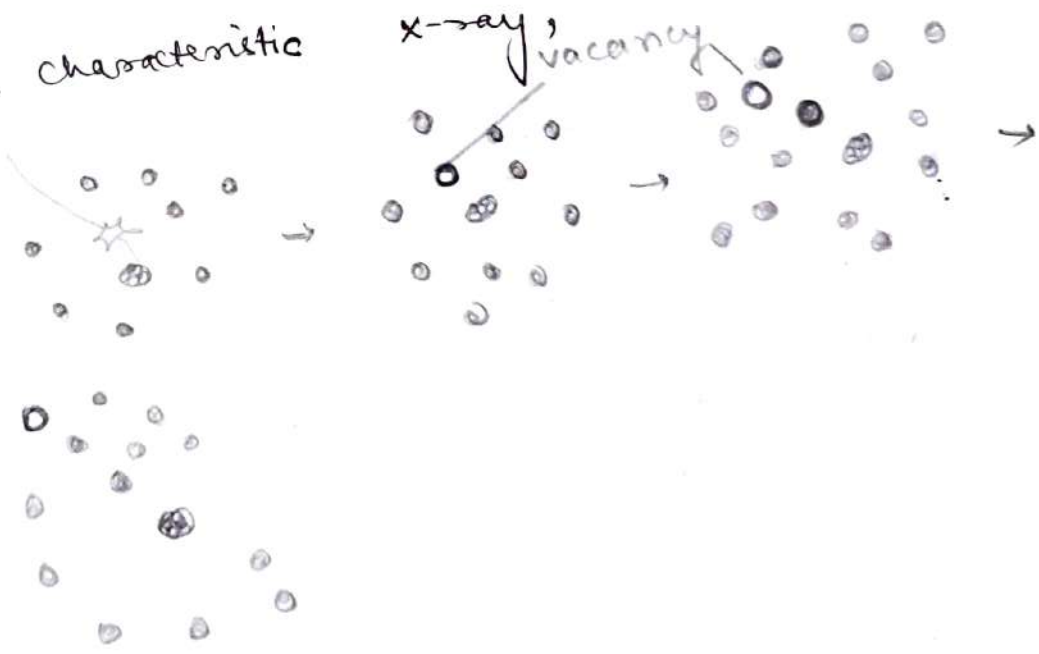


If the electron passes near by the nucleus, the kinetic energy will be minimal and ~~passes the~~ releases photons.



In characteristic

x-ray, vacancy



Q

## LONG ESSAY :

Anemia is defined as decrease in the number of red blood cell ~~in~~ count in the blood, leads to anemia.

It can be due to :

### ① Blood loss

- Blood loss during menstrual cycle or due to gastric ulcer.
- It can be due to major surgeries.
- Trauma
- clotting disorder
- Bleeding disorder

Anemia can be classified as :-

### Morphology :

- ① Microcytic hypochromic
- ② Macrocytic normochromic
- ③ Normocytic normochromic

Based on the reticulocyte :

- ① Based on the reticulocyte production more than 2.5-
- ② Based on the reticulocyte production less



than 25.

Anemia can also be classified as :

Iron deficiency anemia

Megaloblastic anemia

Pernicious anemia

Aplastic anemia

Primary

Secondary

Iron deficiency anemia : Iron deficiency anemia is a common type of anemia which occurs due to :

(i) Blood loss

(ii) Decrease absorption

(iii) Increased demand of the body.

→

### tingling sensation

② Loosening of the teeth : Teeth begins to loosen when there is the deficiency of iron in the blood.

③ Glossitis : There will be inflammation of tongue.

Tongue looks beefy red in colour. Severe pain occurs in the tongue.

### ④ Bald tongue :

> Bald tongue is also known as atrophy of the tongue.

> Tongue looks beefy red.

> Loss of papillary projection occurs in the tongue.

⑤ Cracking of the lips : As a result of iron deficiency anemia, it will lead to cracking of the lip. Lips becomes painful.

(5) Angular cheilitis :

- > Presence of fissuring or crack in the corner of the mouth.
- > Angular cheilitis occurs in the person of adult age.
- > More common in females.
- > It is painful.

(6) Burning sensation of the tongue

(7) Itching of the tongue.

There is the loss of papilla in the tongue.  
Tongue appears red and hence the itching and burning sensation to the tongue.

(8) Perosis : Decrease in salina results because of iron deficiency anemia.

(9)

The iron deficiency anemia can be treated by :

Iron therapy : Ferrous sulphate 300 mg three times a day.

Parenteral therapy : ferrous gluconate

## SHORT ANSWERS :

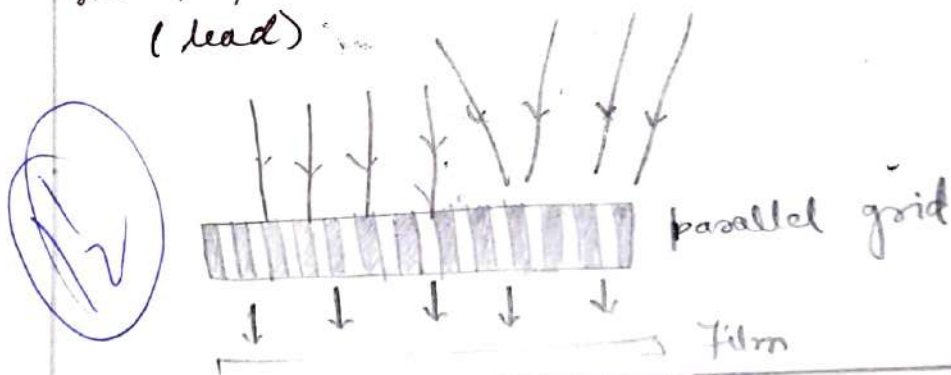
### 11) Birids

When the x-ray photon is free, as in Compton scattering, x-rays get scattered in other direction.

This leads to fog on the film & less better image contrast and clearance.

Grid is used so that the ~~uses~~ all the rays focuses on the film so that, there is reduction of the white lead lines and scattered rays.

It consists of radio alternating strips of radiopaque and radiolucent lines (plastic) (lead).



12) Mental foramen is present on the external surface of the anterior surface of mandible.

Mental foramen can be seen on the radiograph.

When, the radiographs of anterior (periapical radiography) occur, it is seen.

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## FIRST / SECOND / THIRD INTERNAL ASSESSMENT EXAMINATION

Name : Komal Singh Reg. No. : 1791624  
Class : IV BDS Subject : Oral medicine Date : 15.2.21

### SECTION

14 present as a radiolucent area.



Through the mental foramen, mental nerve passes.

13. Latent image

Latent image is an invisible image which is formed in the x-ray film when the photons are generated.

These image becomes visible on chemical processing.

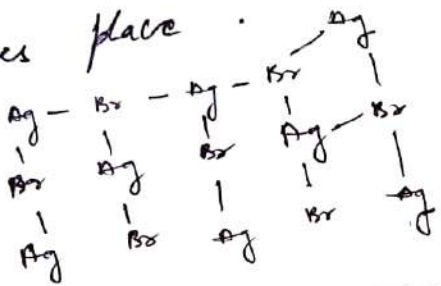
When the x-ray rays are produced, radiation energy ~~are~~ stored from the x-ray exposure is stored.

Based on the object, the density of the stored energy is different.

These stored energy forms a pattern and forms a image on the radiographic film.

When the x-ray photons hit the surface, it will convert the silver halide crystal into silver metallic grains.

And, hence the latent image formation takes place.



### Macrodontia

Development anomaly of teeth, where there is increase in the size of the tooth than the normal size.

- Macrodontia can be:
- (i) True Macrodontia
  - (ii) ~~Reciprocal~~ false Macrodontia

Macrodontia, if the tooth appears to be larger, because the other teeth in the arch is smaller, or the patient jaw is smaller. It is called as ~~true~~ false Macrodontia.

If the tooth is actually larger or compared to other, true Macrodontia.

It can either be :

- (1)
- (i) Generalized
  - (ii) Specific to single tooth or other.

### 15. IMPORTANCE OF PERSONAL HISTORY

- > In the case history, we ask for the personal history of the patient to know the status of the patient.
- > In the personal history, we ask whether the patient is married or not.
- > Sleep/wake cycle of the patient.
- > Brushing times, duration, methods.
- > Any habits : Smoking, drinking etc.  
or, thumb sucking, tongue thrusting etc.
- > By personal history, we know get the patient's personal habits.

11/2

Q. 7 :

Extraoral x-ray films is used to detect several organs like the hard tissue, periodontal space and alveolar crest of bone.

Intra Oral x-ray films :

Rule line  
40 : range

- (i) Bite wing radiographs
- (ii) Periapical radiographs
  - (a) Paralleling technique
  - (b) Bisecting cone angle technique
- (iii) Occlusal radiographs
  - (a) maxillary occlusal radiographs
  - (b) Mandibular occlusal radiograph

In each,

- (i) Topographic occlusal radiograph
- (ii) Lateral occlusal radiograph
- (iii) Pediatric occlusal radiograph

In mandible,

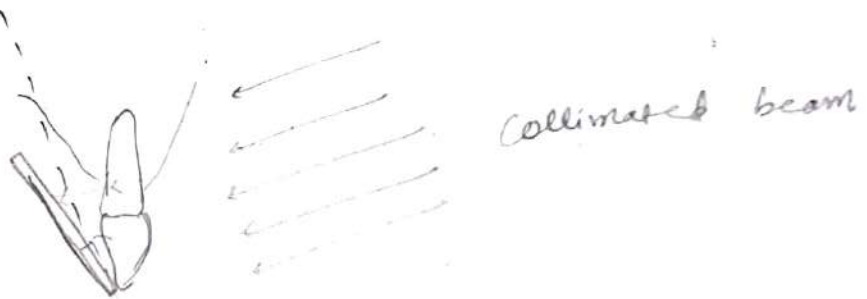
- (i) Cross-sectional radiographs
- (ii) Lateral occlusal radiograph
- (iii) Pediatric occlusal radiograph

Intra Oral localized :



Right angle technique  
 Tube cone technique / Clark's tube  
 Buccal view technique  
 Stereoscopy

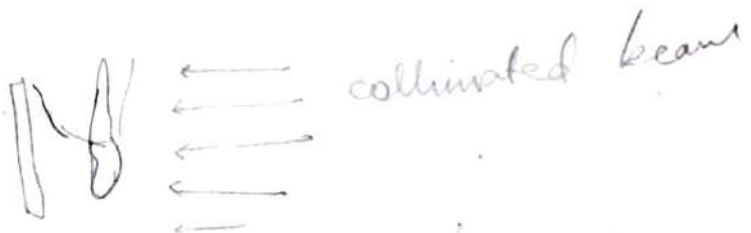
- For the Bisecting angle technique,
- the film is placed as close as to the lingual portion of the tooth.
  - it rests in the floor of the palate.
  - imaginary line is drawn bisecting the angle and dividing ~~two~~ both triangle into congruent angles.



Parallelizing technique :

This technique is more advance than the Bisecting angle technique.

X-ray beam central X-ray should be parallel to the long axis of the tooth and the film.



Occlusal radiograph - it is used to produce maximum details of maxillary and mandibular.

Radiographic film  $57 \times 76$  is used.

Bitewing radiograph : This is used to evaluate the initial lesion by the x-ray perpendicular to the film.

Bite blocks are used, as these bite blocks comes with the special film holder.

Bitewing radiograph we use for :

~~Imp to see the max~~  
Indications :

Incipient inter-proximal caries  
secondary caries

to see maxillary & mandible in same way -  
etc.

> To check for the retained root teeth, impacted teeth, fractured teeth, we see :

① Buccal view technique

• Two radiographs should be taken - one of the normal x-ray (perpendicular) and normal angle.

Second radiograph should be of diff from different angulation.

Then, we should study the image; if both the angles is in same direction - lingual

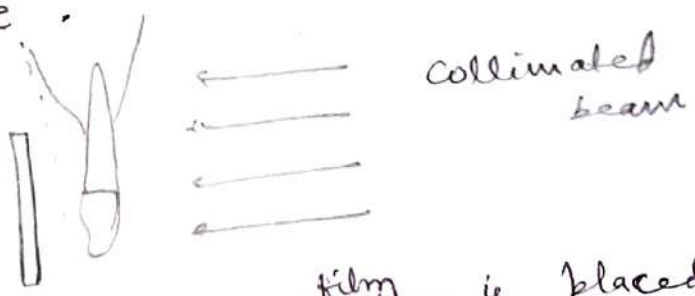
then the angle is in opposite direction, buccal.

Q2 This we determine by SLOB.

### 8. Parallelizing technique

Parallelizing technique is an technique of periapical radiographs which rationale as the X-ray should be parallel to the teeth and to the film.

It is more advance than angle bisecting technique.



Here, in this ~~tooth~~ film is placed parallel to the long axis of the tooth. This gives the image contrast and quality better.

Advantage of paralleling techniques are :-

- (i) There will not be elongation of image.
- (ii) No foreshortening because of vertical angulation.
- (iii) No overlapping because of error in horizontal angulation.
- (iv) No distortion.
- (v) Image will have less magnification.
- (vi) Better contrast & detailed image of teeth.
- (vii) No cone cut.



Q. PROPERTIES OF X-RAY ARE :-

- (i) X-ray is a 'wave packet of energy at electromagnetic radiation at the atomic level.
- (ii) X-ray do not have charge and mass.
- (iii) X-ray have the dualistic behavior - wave and matter particle.
- (iv) X-ray have penetrating power.
- (v) X-ray can be absorbed by matter.

(vi) X-ray have phosphorescence -

(vii) X-ray with shorter wavelength have a more penetrating power whereas, with longer wavelength have less penetrating power.

(viii) frequency is increased in X-ray.

(ix) Intensity follows inverse square law.

$$I \propto \frac{1}{d^2}$$
$$\frac{I_1}{I_2} = \left(\frac{d_2}{d_1}\right)^2$$

(x) X-ray produces biological effect in the living of an individual.

(xi) X-ray requires no propagation.

### (3) Taurodontism

- It is a developmental anomaly affecting tooth where the tooth appears larger and of square shape.



- 'bull like tooth'

- CF: It occurs both in maxillary & mandibular dentition.

- It occurs both in deciduous and permanent dentition.

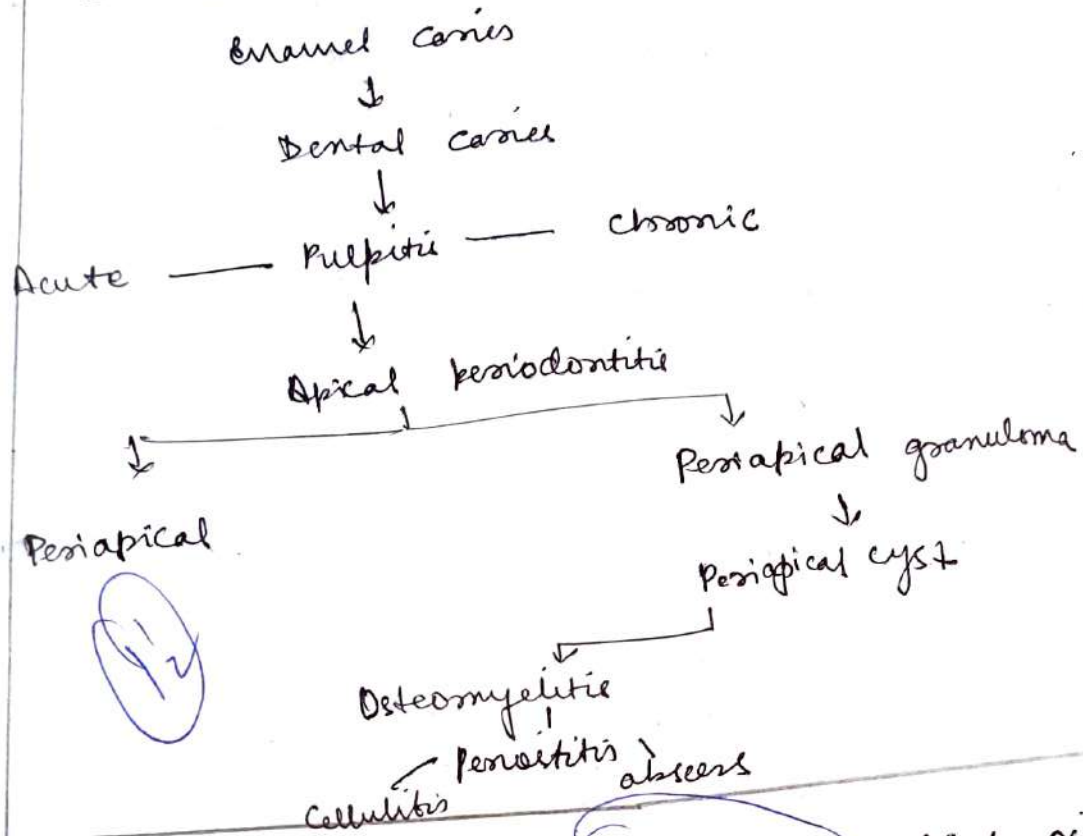
- It leads to overlapping of the tooth.

- Trismus.

Treatment: Extraction of the tooth

Q2

### 4.) Oral sepsis



Q109

### Hemophilia

Hemophilia ~~occ~~ is the anomaly which occurs because of the clotting disorders.

There are three types of haemophilia.

- Haemophilia A
  - Haemophilia B
  - Haemophilia C
- Haemophilia A occurs because of the deficiency of clotting factor VIII.
- Haemophilia B occurs due to the deficiency of clotting factor IX.
- Haemophilia C occurs due to the deficiency of clotting factor XI.

Clinical features :

- Fever, malaise, loss of weight,  
Headache takes place.

- This occurs in the <sup>older patients</sup> adult, but adults  
and the children are also affected.

Haemophilia leads to :-

uncontrolled bleeding when trauma  
uncontrolled bleeding when extraction.

Haemophilia treatment :

It should be checked by clotting test  
and it should be corrected by :

Replacing the factor.



5. Dark Radiographs :

Dark radiograph is a radiograph which occurs  
dark because of more exposure of the  
developer.

As, developer consists of Developing agent, Preservative,  
Activator & Restrainer.

1. Lighting - Dark radiograph is an outcome of improper  
lighting or the light present in the  
x-ray processing room.

- x-ray lighting shut gate should be  
tight, and magnetic gate so that  
it prevents the light source to enter  
the x-ray processing room.

Safelighting : The bulb of 15-watt is used in the x-ray processing room, so that the operator can operate and work in ~~non~~ optimal intensity of light.

the safelight should be present 4 feet to the distance of the object.

### IMPORTANCE OF MEDICAL HISTORY

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- > In the case history, medical history is asked to the patient so that we can easily diagnose the case.
- > In medical history, we ask the patient of any systemic disease or disorder, duration of that and the medication if taken any.
- > ~~eg:~~ Several treatment is not suitable for the patient if undergoing any systemic problem.  
eg: Patient with hypertension should not be taken directly for scaling.
- > Certain case and precautions should be taken handling the patient.
- > we also get to know, with which substance or drugs the patient is allergic to.
- > we get to know about the patient concerns or patient's attitude towards his/her health.
- > Recording the patient's medical history gives overall knowledge of the patient himself, his attitude, his disorders, her/his problems and helps in proper treatment of the patient.



FIRST / SECOND / THIRD INTERNAL ASSESSMENT EXAMINATION

Name: Monish Kumar N. Reg. No. 1800091

Class: IV BDS Subject: public Health dentistry. Date: 23-6-22

Long Essay. SECTION

2. Epidemiology.

Epidemiology is a study of distribution and determinants of the health related event/state within the particular population and its application is to control the diseases.

Epidemiological studies can be classified into different categories:

- \* Observational studies.
- \* Experimental studies.
- \* Analytical studies.

$$\frac{45\frac{1}{2}}{70}$$

→ <sup>observational studies.</sup> Disruptive studies are studied based on different concepts.

- Defining the population to study.
- Defining the disease.
- Defining the disease based on
  - ① Time
  - ② place
  - ③ person.
- Measurement of disease.

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- compare with known indices
- giving hypothesis
- \* To study about disease, and to define study based on time, again furthered classified.

- short-term study/ variations.
- periodic variations
- long-term variations.

\* In short-term variations, Epidemic Spread.

- ⊕ common source variation.
- ⊕ propagated variations.
  1. people - people
  2. Animal - people
  3. Anthropol - people
- ⊕ Multiple source variation.

- \* periodic variations.
- \* Long-term variations

\* Based on place, to define disease, we have → international variations.

- national variations.

- Rural-urban.

- Local variation.

- Migrant study.

- Migrant Local Study.

\* Based on person, to define disease with person factors like age, sex, gender, occupation, Economical status, knowledge everything is considered and studied over a period of time.

- other studies are

- Randomised community trial.
- community Trial.

- cohort - study.
- case - control study.
- Ecological study.

### Epidemiological Triad.

Epidemiological triad is consist of three parts.

- Agent Factors.
- Host Factors.
- Environmental Factors.

Host Factors.

→ when considering host factors, Age, Sex, occupation, Socio-economic status, Marital status, physical status, knowledge, all this points are considered and may affect the studies at any point of time of study.

### Agent Factors.

Agents factors differs from various agents to agents. As basic agent factors in epidemiological triad are Resistance, Regilence, cummunity of agent and other factors. conditions etc.

### Environment Factors.

→ Environmental factors are very important for successful studies as availability of Resources, Duration and Severity, of illness, Diet and nutrition, time and duration of studies are considered in the studies.

## SHORT ESSAY.

### 3. Principles of Health Education.

- ① Interest.
- ② Participation.
- ③ Known to unknown.
- ④ Comprehensive.
- ⑤ Reinforcement.
- ⑥ Learning by doing.
- ⑦ Credibility.
- ⑧ Seed, Sewage, Soil.
- ⑨ Feed back.
- ⑩ Leadership.

#### Interest.

- For the success of health education the community interest is very important.
- To promote health education, the leader must know about the culture and behaviour of the community and program should include that particular community interest.
- Participation and interest of own decision depends upon the community.
- Study of the community interest before the planning of program. Keeping

## Participation

- Community participation is very important in promoting health education.
- As a community dentist (or) from the organisation, they can make the program more interesting and exciting to make people participate.
- Leader should explain in their own language along with their interest to get active participation.

## Known to unknown.

- Always start with known (or) familiar topics (or) information when you promoting public health.
- The topic should be known by community, communicate with the known context and then promote unknown information linking the known information to community.

## Leadership

- For successfully promoting the public health, the leader must be aware of all possible culture, behaviour, interest, economical status, knowledge, cultural values, - local knowledge of language of the community. The leader / speaker should also follow the protocol of the studies before conducting the programme.

4. What is solid waste?  
Write the details of Bangalore  
method of waste disposal.

### Solid waste

Solid waste is the daily  
used and food waste of daily  
routine from house and industries  
which includes plastic, paper and  
all solid mass waste.

### Bangalore method of waste disposal.

There are many ways of waste disposal  
like →

- Dumping.
- Compacting.
- Incineration.
- Manual pits.
- Burial. etc.

→ Bangalore method of waste disposal  
the name, because it was first  
implemented in Bangalore.

→ Due to high population density  
and traffic in cities like Bangalore,  
the daily solid waste is increased  
and no space is available for the  
disposal.

→ All the solid waste from the  
Bangalore city is taken outside the  
city limits and their the procedure  
is carried.

→ The large pits are dugged of  
15-20 meters wide and 10-15  
meter deep pit of 30-35 meter

Bread pits are dugged and then  
6 inch or solid waste is dumped into  
the pit and filled up with 2 inch  
the earth or soil.

→ Again 6 inch of solid waste over  
that 2-3 inch of earth. This is  
carried gradually and the outer  
layer 2 meter above the ground level  
the earth or soil is covered and  
left for degradation.

→ Due to level formation of soil and  
solid waste, the heat is generated  
in 4-6 days.

→ This generated heat is formed  
inside the ground level and stays  
for 4-6 weeks.

→ In this time, the solid waste  
is decomposed and mixed into the  
ground.

→ This ~~the~~ technique of waste  
disposal is practiced in many big  
cities now days.

- 4 -

5. clinical steps in pit and fissure Sealant placement.

→ pit and fissure Sealant placement is indicated in deep occlusal pits and fissures.

→ when oral hygiene is poor and who are prone to dental caries.

→ clinical steps in pit and fissure sealant placement are:

Application / placement of Rubber dam.

↓  
Isolate the area of application.

↓  
Scaling as oral prophylaxis.

↓  
Removal of ~~superficial~~ <sup>soft</sup> caries from pits and fissures.

↓  
Application of Etchant.

↓  
After 30secs, dry and clean.

↓  
Application of Bonding agent.

↓  
Curing of Bonding agent.

↓  
Application of pit and fissure sealant and cure it with a UV light source.

↓  
Recalled patient for evaluation after 6 months.



## public Health Dentist

## private Dental practitioner.

① public health dentist is a salaried employee, who is accountable to his (or) her immediate supervisor and -  
- Tax payer.

② He works under a organisation who provides public health programme which is governed by government (or) Non-Government organisations.

③ Decisions are taken by governing persons before the program operation.

④ He carries home, a low salary compare to private dentist but avails benefits like pension plan, Insurance, Sick holidays, paid holidays.

⑤ usually public health dentist will go to the community.

⑥ Group of people are treated by program.

⑦ public health dentist will be travelling different communities for programs.

① private dental practitioner is a daily money based and his (or) her money income will completely depends on own practice.

② He/she works in their own practicing place and decisions taken by themselves.

③ Here Dentist make their own decision about the treatment (or) treatment plan based on the framework of dental practice and the Dentist and patient relationship.

④ He carries home, a high salary but does not avail any benefits like pension plan, Insurance. He can buy insurance on his own.

⑤ Patient come to doctors with one significant complain.

⑥ treats only one patient at time and particular appointments.

⑦ Here, dentist is confined to his service area (or) practice area.

4 1/2

① public health dentist works in association with NGO to promote health awareness to community.

② many people are treated at once.

③ Here, public health dentist tries to minimize the disease.

Few terminologies differ from public health and private dentist.

Examination.

Diagnosis.

Treatment planning.

Treatment.

Evaluation.

Payment for service.

① Dentist can motivate patients about oral hygiene & health but one at a time.

② only one person is treated at particular time.

③ Here, the possible outcome dentist wants to get is successful treatment.

Survey.

Analysis.

Program planning.

Program operation.

Interpretation.

Funding.

10.

Indications and contra indications of Pit and Fissure Sealant.

Indications:

① Deep pit and fissure on occlusal surface.

② patient who are prone for dental caries.

③ Growing children with more etiological factors causing decay.

④ - poor oral hygiene with pits and fissure.

⑤ Growing school children who are more prone to caries.

## Contra indications

- ① Open Caries, ② deep dentinal caries
- ③ Caries in proximal wall which include pulpal involvement.
- ④ In case of pain.
- ⑤ presence of any tumour, cyst.
- ⑥ patient shows allergic to composite.
- ⑦ poor oral hygiene.
- ⑧ un-cooperative patients (or) children.

9.

Duties of dentist towards a patient and towards another dentist.

Duties and Responsibilities of dentist towards patients.

- Dentist should properly consider patient chief complain.
- Dentist primary concern of treatment should be addressing the chief complain.
- should explain the diagnosis, treatment plan and the fee for treatment before the any procedure.
- Should follow frame work of dental practice before treating patient.
- consent form should be taken from patient before any treatment.
- Dentist should address any problem of patient all the time.
- should not treat patient with economic status of patient.
- Should not consider Gender disparity.
- Dentist should respect the behavioural and culture values of patient.

- Duties of dentist towards another dentist
- Dentist should never suggest the case to other dentist without prior knowledge.
  - Seek for suggestion, when in doubt.
  - Consider the treatment and case sheet done by previous dentist.
  - Consider medical ethics when over another dentist.

6.

Define primary health care.

Primary health care is place of immediate access (or) prevalence whenever there is a initial sign of illness and for emergency primary treatment.

Principle of primary health care.

- Support the individual to seek help for any illness in initial stage.
- Available all the times.
- Quickly communicable and minimal distance from living area.
- This accountable for the governing committee.
- provide primary treatment in emergency.
- To treatment minimal treatments aids.
- Consider cultural and economic status of local community.
- Value for the behaviour consideration of the community.
- Provide primary health care kits and support to the community.

## SHORT ANSWERS

12. Etiological factors of oral cancer.

- Tobacco consumption.
- Excessive alcohol consumption.
- Genetic.
- Vigorous exposure to radiation.
- Trauma induced malignancy.
- Bitten nut (quid) chewing.
- Bad oral habits and hygiene.

13. Any 4 mass media tools.

- Visual aids.
- Audio aids.
- Audio visual aids.
- Radio, Television, Newspapers, magazines, posters, placards etc.

14. Askov School dental program.  
This is the program initiated to treat school dental children and support and promote oral hygiene awareness among the school children.

15. Local DAs and Anganwadi workers.  
→ Anganwadi workers are elected / appoints persons in rural area who take care of children, about their diet and nutrition also pregnant women, motivate them for proper nutrition and child care.

  
**PRINCIPAL**  
Dnyananda Begar College of Dental Sciences  
Kumarnagwamy Layout,  
Bangalore - 560 078.

FIRST / SECOND / THIRD INTERNAL ASSESSMENT EXAMINATION

Name : HEMAVATI, ROOBYA Reg. No. : 16D1619

Class : IV B.D.S Subject : ORAL AND MAXILLO FACIAL SURGERY Date : 21.3.2020

SECTION

44/70

44

LONG ESSAY

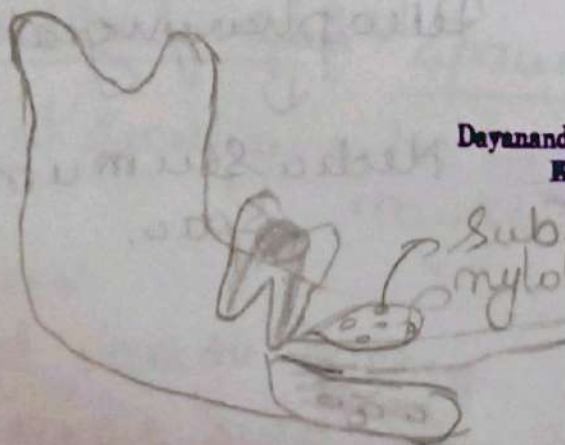
1) Spread of infection from mandibular 2<sup>nd</sup> molar

-> Infection spreading to submandibular either sublingual spaces.

-> The infection spreading also depend upon the root level attachment to mylohyoid muscle.

-> If the root attachment superior to mylohyoid muscle then the sublingual facial space infection occur.

-> If the root attachment inferior to mylohyoid muscle then the submandibular facial space infection occur.



PRINCIPAL  
Dayananda Sagar College of Dental Sciences  
Kumaraswamy Layout,  
Bangalore - 560 078.

Sublingual facial space  
mylohyoid muscle

Submandibular facial space

# Submandibular facial infection

Asymptomatic irreversible pulpitis  
of molar

↓  
Infection spread to periapical  
area

↓  
From periapical area to  
near by spaces.

↓  
Exudate accumulation

↓  
Extraoral Swelling is seen

↓  
Tenderness

↓  
If not treated cellulitis

↓  
Septicemia

↓  
Spread to Pterygomandibular  
space

↓  
Lateral pharyngeal space

↓  
Petropharyngeal space

↓  
Necrotic space

Spread to  
Secondary  
spaces  
infection

## Submandibular

Sublingual facial space infection

Asymptomatic If the root level attachment is superior to Mandibular I<sup>st</sup> molar.

Asymptomatic irreversible pulpitis

Infection spread to periapical area

If not treated

Then spread to sublingual space.

~~More~~ Inflammatory Exudate accumulation

Intraoral Swelling in the floor of mouth is seen.

Tenderness

If not treated cellulitis  
↓  
Septicimia

Spread to adjacent facial space like submandibular or to lateral pharynx then to retropharynx and last to mediastinum.

Submandibular space <sup>facial</sup> space infection C/F

→ Extraoral Swelling on the lower border of mandible

→ Tenderness

→ Limited mouth opening

→ Skin above swelling is stretched, over, and shiny.



## Management Incision & Drainage.

- The Incision is done 3mm away from lower border of mandible and with the skin for up the incision is enlarged & located for break.
  - Adjunct therapy
  - Antibiotics are prescribed for both anaerobic & aerobic microorganism.
  - Metronidazole is given
- ### Sublingual facial space infection UF
- Unilateral Swelling in
  - uplift of tongue in.
  - Difficulty while swallowing and difficulty in breathing

## Management

- Incision & Drainage.
- Incision is given below the tongue.

## Ludwig's Angina Management

Ludwig's Angina: The inflammation of the 3 facial infection <sup>of sublingual</sup> submandibular infection, sublingual infection, submental infection.

## Management &

The Emergency incision & Drainage is done as due to this the fall back of tongue occurred lead to Breathing difficulty and lead to death of patient

by Black no. 11

- The incision is given either in lower border of the mandible 2mm away from it to preserve the facial artery structure.
- The zygomatic foramen is inserted and incision is made open and lower arch breaks.
- Then the drainage is done. 8
- Adjuvant Antibiotic therapy is given.
- i.e. Metronidazole antibiotic is prescribed.
- Proper hydration therapy is done.
- Patient airway is maintained.

②

TMS Ankylosis: The fusion of condylar head of mandible to articular temporal fossa due to ~~irrev~~ replacement of articulating disc by the ~~bone~~ calcified mass.

Etiology

- At Birth due to forcp. delivery this can cause TMS ankylosis
- Due to infection from the viral. or. Bacterial infection
- Due to trauma.
- Due to systemic Rheumatoid arthritis.
- <sup>Due to</sup> Any joint degenerative
- Due to post surgical complication
- Recurrence chances are less.
- Due to congenital.

→ Due to hereditary

→ Due to  $\Phi$

## Pathogenesis

→ Trauma



The blood vessel rupture in the articular disc



hemorrhage



The blood clot formation is seen



After that fibrinogen produces collagen fibres.

↓  
Collagen fibre accumulation seen

↓  
Then these fibres are replaced by the calcified structures.



Bony Ankylosis is seen.

## Clinical features

→ Because of Bilateral TMJ ankylosis  
Bird like face appearance is seen

→ The Both side Antegonial notch is seen

→ The mouth & throat distance decrease

→ Anterior open bite

→ Difficulty while opening mouth

- Difficulty in Speeching, Difficulty in mastication
- Poor oral hygiene maintenance
- Periodontal problem, caries is more.
- Angle Malocclusion is seen.

Diagnosed Investigation

~~7/7/20~~ 7/7/20

- ① Complete Blood Count
- ② Orthopantomogram
- ③ CT Scan
- ④ Computed beam tomography Scan ✓

Management

→ Kaban's protocol for management of Bilateral cleft lip

- ① Coronoidectomy done bilaterally.
- ② Gap arthroplasty
- ③ Arthroplastic material filled in gap arthroplasty
- ④ Postoperative aggressive exercise & physiotherapy for next 6 months.
- ⑤ After the dentures & complete healing cosmetic surgery performed

## For Condylotomy

- Here ~~But~~ Bilateral Ankylosis Both the condyles are removed <sup>then the metallic</sup> or arylie artificial condyl if replace
- Gap arthroplasty
- The gap is created between the condyle head & temporal fossa.
- This gap filled with graft material

like Autogenous or Allogeneous

↳ Costochondral ↳ Metallic  
↳ Rib graft ↳ Arylie

↳ femoral

↳ <sup>bone</sup> Temporalis muscle, temporal fascia, case

\* In this, the recurrence chance is more if the aggressive physiotherapy not done properly or maintained

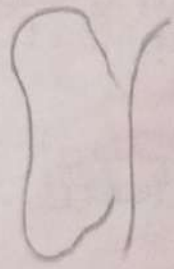
\* The Incision made either in

- Preauricular

- Post auricular

- Alkyat Bandy incision → Here the Question marks kind of incision is done. front of ear when the incision is done give us away to preserve internal maxillary artery the incision made front of ear and entered above auricle into temporal region

→ Here the temporal muscle is used for graft because of rich blood supply & superficial temporal artery



Preauricular



Postauricular



Akyaat-Bomeely  
(Gullion form  
in axilla)



## Short Essay

⇒ ①

### TNM Staging

3

T indicate for Tumour

N indicate for Node i.e Lymph node.

M indicate for Metastasis

$T_x$  → Tumour cannot be assessed

$T_{is}$  → Tumour Carcinoma in site

$T_1$  → Tumour ~~is~~ enlarged not more than 2cm

$T_2$  → Tumour enlarged between 2-4cm

$T_3$  → Tumour enlarged more than 4cm

$M_x$  → Metastasis cannot

$N_x$  - Lymph node cannot be assessed

$N_0$  - No Nodal involvement

$N_1$  → <sup>Metastasis of</sup> Ipsilateral lymph node enlarged less than 3cm

<sup>Metastizing</sup>  
<sup>Sing</sup>  
N<sub>2a</sub> → Ipsilateral lymph node <sup>involved</sup>  $\leq 6\text{cm}$

N<sub>2b</sub> → Metastizing of <sup>multiple</sup> Bilateral lymph node  $\leq 6\text{cm}$ .

N<sub>2c</sub> → Metastizing of Single Bilateral lymph node  $\leq 6\text{cm}$

N<sub>3</sub> → Metastizing of Multiple Bilateral lymph node more than  $6\text{cm}$ .

M<sub>x</sub> → Metastizing cannot be seen

M<sub>0</sub> → No Metastatic involvement

M<sub>1</sub> → Local invasion is seen

M<sub>2</sub> → Distal invasion is seen.

Stage I → T<sub>1</sub>, N<sub>0</sub>, M<sub>0</sub>.

Stage II → T<sub>1</sub>, N<sub>1</sub>, M<sub>0</sub>, T<sub>2</sub>, N<sub>0</sub>, M<sub>0</sub>.

Stage III → T<sub>1</sub>, N<sub>1</sub>, M<sub>1</sub>, or T<sub>2</sub>, N<sub>0</sub>, M<sub>1</sub>, T<sub>2</sub>, N<sub>1</sub>, M<sub>1</sub>.

Stage IV → T<sub>3</sub> Any N with M<sub>2</sub>.

## ② CSF Rhinorrhoea

→ The complication which occurs due to trauma.

→ when the cerebrospinal fluid enters the nasal cavity.

- Due to fracture of Frontal region, or any head injury or
- or due to the Frontal fracture the leak of CSF from the nose is seen.
- Here the fracture of the Base of skull along with fracture of Sphenoid & ethmoid bone result in leak of CSF from nose

3

### Investigation

- This can be differentiated from the nasal secretion by the halo sign for maturation of cerebrospinal fluid.

3

### AOT

- > Adenomatoid odontogenic tumour.
- > Tumour ~~is~~ occurs from the odontogenic origin.
- > The tumour arise from the epithelium organ. or remnants of epithelium.
- > Clinical features
- > Most commonly seen in Male
- > <sup>Most</sup> seen in predilected age is the young age below 30 year of age.
- > The most commonly seen in Maxilla than Mandible

3



- ✓ Seen in mandibular area
- ✓ The swelling is seen when receded in facial asymmetry
- ✓ This patient may complain of pain
- ✓ No over stretched of skin over the swelling

### Investigation

- ① Complete Blood counts
- ② OPG
- ③ CT Scan
- ④ CBCT.
- ⑤ MRI
- ⑥ Biopsy.

### Management

- ✓ Surgical Excision is done
- ✓ In Maxillary the incision is given ~~side~~ lateral side of the nose & then continued to the side of ala of trigon & then to <sup>upper vermillion border of</sup> the lip
- ✓ The incision is given for the ethmoidal <sup>common</sup>
- ✓ In Mandibular → Submandibular Radical Neck dissection is done.
- ✓ If there is the nodal involvement the Biopsy is done.
- ✓ Cytology of ~~of~~ Nodes of it done

Name : ..... HEMAVATI ROOYZ ..... Reg. No. : 16D1619.....

Class : ..... IV B.D.S. .... Subject : ORAL AND MAXILLO ..... Date : 2/3/20.....  
- FACIAL SURGERY

SECTION

Q.

Oroantral fistula.

2 1/2

→ The communication <sup>create</sup> between the oral & the Maxillary sinus is called Oroantral fistula.

Etiology

✓ During Extraction of the long rooted canine from the socket the if in abnormal force application then the communication is created at the root area to Maxillary sinus

✓ If During Extraction if the roots are pushed toward the Maxillary antrum floor then the communication can occur.

✓ During any surgical procedure if the dental sinus left procedure if not sutured well then the communication is created.

- ✓ Due to any infection from the canin spread to Maxillary Sinus due to that fistula is occurred.

### Clinical features

- ✓ An patient may complain of pain
- ✓ Heavyness in the midface region
- ✓ Pus discharge from the fistula opening in mouth
- ✓ The grossly decayed tooth present
- ✓ The left root piece may seen.

### Management

- ✓ If the infection occurred then the Drainage is done
- ✓ Patient kept on adjunct Antibiotic therapy
- ✓ Then the closure of the proctured fistula done surgically.

## ⑤ ABCDE in Trauma.

In trauma in the first 30 minutes is considered as golden hour in emergency  
Condition

A indicate Airway.

B indicate Breathing

③

C indicate Circulation

D indicate Disorientation

E indicate Exposure.

✓ The Airway is well maintained for the Patient to Breathe like in trauma. in midface fracture the tongue fall back will be seen so digitally getting the tongue out is done

✓ If the denture or any Broken piece of any Bone. Swelling Stricture is blocking pathway of oropharynx then those are removed from hand

✓ ~~The position of the patient is maintained with the head is made to keep below tilted below the head the legs are raised~~  
the level of head

✓ If the Blood or any discharge Blocking then the Surgically Exposed trachea Stomy or Endotracheal tube inserted.

## ✓ Breathing

- The Ventilator ~~is~~ maintained same.  
The pulse oximetry is placed to check the Saturation of oxygen level in the Body.

✓ The oxygen is supplied externally.

✓ Here the oxygen &  $CO_2$  Saturation is checked.  $PO_2$  &  $PCO_2$ .

## Circulatory

→ Here the Blood Bleedage is now due to laceration to the Big main organ due to rupture of Blood vessel.

→ First the Bleeding is stopped.  
like in Head injury due to high rich Blood supply in Scalp.

✓ or due to rupture of Phrenic & Splenic ~~at~~ Blood vessel.

✓ If no trauma due to any syncope.  
Here the patient position is maintained  
i.e. the patient head is placed below level of heart, and the legs are raised.

✓ That leads to move the Blood flow to Brains to heart.

## Disorientation

→ Patient is asked for the response to the question or to any situation

## Exposure

## ⑥ Classification of middle third facial fracture

① Lefort I

3

② Lefort II

③ Lefort III

✓ In lefort I fracture :- The alveolar process fracture of Maxilla is seen where the palatine Bone fracture is seen.

✓ In the lefort II the mobilization of the Maxilla is seen.

✓ Hence

### Lefort II

- Here the fracture lies at the side lateral side of nose to the lateral the lateral part of the eye.
- Here the fracture is pyramidal shape.

Report III → The fracture - three lines.  
from the orbit to the zygomatic  
butress.  
<sup>lateral per</sup>

## Short Answer

- ① Color coding for waste disposal
- Red color indicate Disposal of Blood related cotton or gauze pieces
  - Green color indicate disposal of any surgical materials. ①
  - Blue color indicate disposal of the Syringe, material, Needle material.

② Methods of retractor

- ① By Elevator forceps ②
- ② By Hollenback retractor
- ③ By Alley's forceps.

③ Syncope: The irreversible loss of consciousness of patient due to low level  $O_2$  supply to the Brain

when the oxygen supply to Brain  
decreases Syncope Occ.

Syncope due to

↳ Vasovagal

↳ Head trauma

(1)

↳ Psychiatric conditions  
↳ Brain injury

(4) Dry socket: The dislodgement of the  
clot formed at the site of the  
Extruded clot leads to dry socket  
formation which is painful and  
the malodor comes from dry socket

(5) Alveolar Paresthesia

(5) Vazson's Alveolar Paresthesia (1 1/2)

\* Here the Paresthesia is for sensation of  
Inferior Alveolar nerve Blov. i.e. Mandibular  
Ar. or Blov.

\* Handicapped

when Patient having limited  
mouth opening

Patient asked to Bite and the syringe  
is given at the same level of  
Maxillary molars.

(6) I & I

Incision - In any surgical procedure  
The cut which is made through  
Blade either by number 11 or 15 or 10.  
Blade is called Incision



Incision type → Vertical  
↳ Horizontal (1)  
↳ Plus type sign.

→ Horizontal incision is given in the submandibular incision

→ Plus type given in lipoma patch easy to break the lobules.

### Drainage

→ The method to take out the inflammatory exudate or the fluids which are accumulated in the pathological cavity by incision.

→ Drainage is done that remove all the focal infection & relieve the pain & symptoms of patient.

→ when the infection is seen the incision drainage is performed.

(7) Theories of local anaesthesia.

↳ Membrane expansion theory (1)

↳ Specific receptor theory

↳ Calcium displacement theory

↳ Autylcholinergic theory

## 8 Marx theory

Marx theory proposed for the osteoradionecrosis condition were the hypofascia, hypocellular, hypooxygen leads to necrosis of the tissue exposed to X-rays (1)

## 9 S A B E Prophylaxis

Subacute Bacterial Endocarditis prophylaxis

→ Here the prophylaxis given to prevent the endocarditis by the bacterial invasion

→ AS due to in childhood if any throat infection, ear or any infection over the antibiotics are given which are Amoxicillin,

(1)

<sup>107</sup>  
Tetracycline  
Metronidazole.

→ that prevent tooth infection so that the chance of septicemia is seen so the tooth infection is cured by giving antibiotic therapy.

10 CT Scan & Computed tomography Scan for the Bone lesion or any Bone invasion from the Malignancy, or to see the fracture of Bone.

(1)

PET Scan  $\rightarrow$  Positron Emission  
tomography Scan.

$\rightarrow$  If ~~any~~ in case of Sialoliths  
the position will go.

$\rightarrow$  If in case to find the malignancy  
or metastatic condition  
PET is advised.

---

*[Handwritten signature]*

**PRINCIPAL**

Dayananda Nagar College of Dental Sciences  
Kumaraswamy Layout,  
Bangalore - 560 078.

## FIRST / SECOND / THIRD INTERNAL ASSESSMENT EXAMINATION

Name: Srinan Nalk Reg. No. 1820104

Class: IV ADS Subject: Endodontics Date: 20/6/2022

### SECTION

46/70 21/6/22

#### LONG ESSAYS.

① Working length is defined as the length from coronal aspect of pulp chamber till the apical portion where the obturation must be done.

- It is usually all one minor construction.
- 2 types

#### Radiographic method

- best's method
- bretman's method
- englis method
- grossman's method
- welch's method
- kuttler's method
- radiographic grid
- subtraction radiography
- new radiography
- endometric probing

#### NON radiographic method

- tactile sensation
- electric apex locator

Principal

Dayananda Sagar College of Dental Sciences  
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Bangalore - 560 078.

#### → Englis method:

~~the master file is selected by~~  
A preoperative radiograph is taken

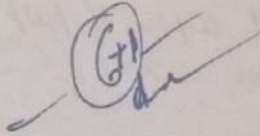
↓  
on this radiograph, keep one file & measure one ~~same~~ length

↓  
measure it on the endometric gauge and adjust the stopper.

↓  
then insert it into a canal

↓  
take a radiograph & check it

↓  
if one file is large longer or shorter  
redo it or cut it and adjust  
it accordingly.

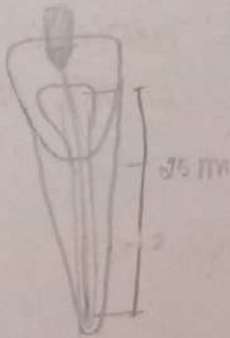


↓  
if one cone is fine, one master file should  
be 1mm less than that length.

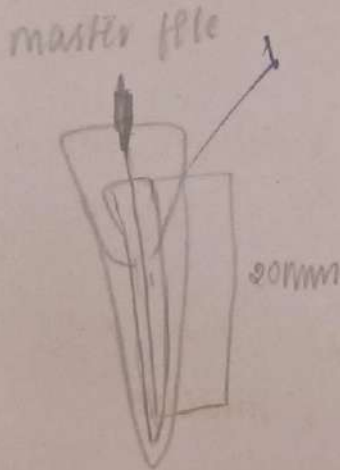
Advantage: Accuracy.

~~Disadvantage~~: ~~Water~~

② ~~Disadvantage~~ objective



↓  
master file



② obturation is done after the all the working length has determined

- Working length determination → cleaning & shaping → obturation
- obturation techniques

- Cold technique

lateral condensation technique

- Heat method

vertical compaction technique

vertical / lateral ~~straight~~ condensation technique

6 system : wave condensation technique

chicago technique

M.C. spaden technique

Calaman

- Thermoplastic technique

obtura II

core material ~~technique~~

- obturation using silver points

→ LATERAL CONDENSATION TECHNIQUE: it's a cold obturation technique

~~the~~ requirements:

requirements:

- canals should be straight
- apical foramen should be constricted

technique:

① select one master cone

- ~~it should be placed~~ when you insert one cone you must feel a tug back

② select a pluggger:

- one pluggger must be 1mm smaller than one actual size needed

→ ~~rotate the~~ apply impactors & medicaments and dry one canal using paper points



Apply sealers on one  
walls of dentine

↓  
coat one GP with  
one sealer &  
place it in one root canal

↓  
take a ~~the~~ one selected plugger & condense  
it laterally

↓  
this give us space for more  
GP cones

↓  
selectively reduce one slope of one GP, apply  
sealer & compact it laterally with  
selectively lesser slope of pluggers

↓  
the one remaining GP ~~is~~ not uniformly  
compactly are ~~forced~~ served off.

### Advantage:

- good compacted GP
- materials do not flow to one periapical region
- accuracy

### Disadvantage:

sealer: GP ratio is more  
time consuming  
doesn't seal off one accessory canals much  
presence of voids



→ master of cone



→ compact  
G.P. cone



## 1) SHORT ESSAYS :

- ③ Sodium hypochlorite : used as 5% w/v.
- It was first introduced in world war 2 to treat infection.
  - It has germicidal effect as well, along with dissolution of ~~one to~~ walls of dentin.
  - deburment of root canal.

### Mechanism :

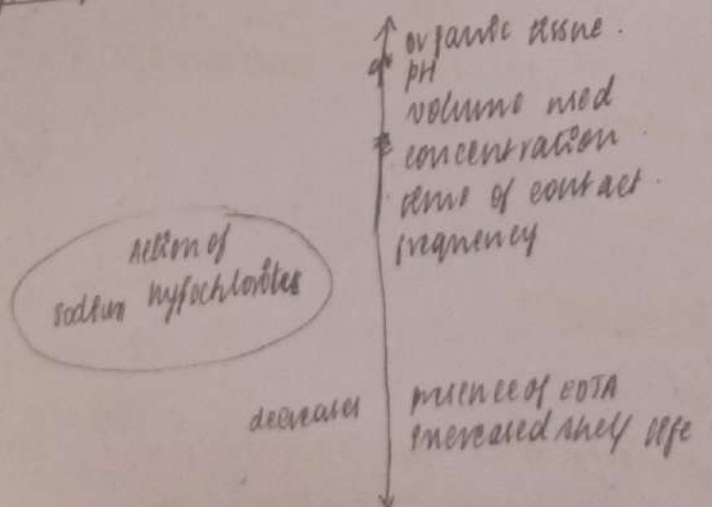
- It exists in 2 forms in an aqueous solution.
- hypochlorous
  - hypochlorite.

④ It leads to saponification reaction that interferes with enzymatic action of the bacteria.

⑤ It combines with amino acids to give base & salt & water. This reacts with the cell wall of the bacteria and inhibits its metabolism leading to cell death.

⑥ Hypochlorous combines with organic part of dentin to form chloramines that inhibits the growth of bacteria & kills it.

### Factors affecting the action of Sodium hypochlorite.



\* Available in two forms

- buffered : pH : 7.0
- unbuffered : pH : 11.0

→ Advantages :

- helps in removal of necrotic pulpal tissue.
- debridement of the canal.
- bacteriocidal effect.
- preparation can be stored.
- economical.
- biocompatible.
- Non toxic.

→ Disadvantage

- bad odour
- bad taste.
- caustic
- If the solution ~~gets~~ goes in the periapical region it can lead to suppuration.
- tooth discolouration.
- burning sensation when comes in contact with gingiva.

② Calcium hydroxide :

- calcium hydroxide is a strong base.
- it is one most wide used intracanal medicament in one root canal procedure.

→ ~~it has~~ ~~not~~ its function.

③ Physiological mechanical barrier

It acts as a physical barrier by

- ① prevention of microorganisms from travelling corona - apically
- ② prevents the entry of microorganisms from one foramen to canal.
- ③ wedges the space & prevents the bacterial multiplication leading to death.

### B) Biological function:

- has bacteriostatic action
- neutralizes the toxins produced as it is a base.

### C) Chemical function:

- debridement of debris ✕
- removal of smear layer ✕
- It has substantivity ✕
- reacts with the organic component of one dentin & ~~that~~ helps in remineralization ✓
- helps in healing.

### Adv:

- It is used for making the already present infection.
- help in healing.
- It is biocompatible.
- economic.

⑥ phoenix abscess :

An abscess is a pus filled cavity.

C/E :

- ① history : severe pain, severe ~~empty~~ cavity.
- ② C/E : swelling, sinus fistula, pus discharge, erythematous.

③ Diagnosis :

- Periapical : tender on percussion (negative).
- Radiographically : widening of periodontal ligament space, severe caries, loss of lamina dura, ill defined radiolucency at one root apex.

3 1/2

Microscopically : presence of neutrophils, pus cells, sulphur granules etc.

Differential diagnosis : ~~the~~ chronic alveolar abscess, paradental cyst, paradental granuloma.

Final diagnosis : Acute exacerbation of chronic alveolar abscess or phoenix abscess.

treatment : pus drainage followed by ~~extra~~ endodontic treatment followed by crown placement.

⑥ Standardization of root canal instruments :

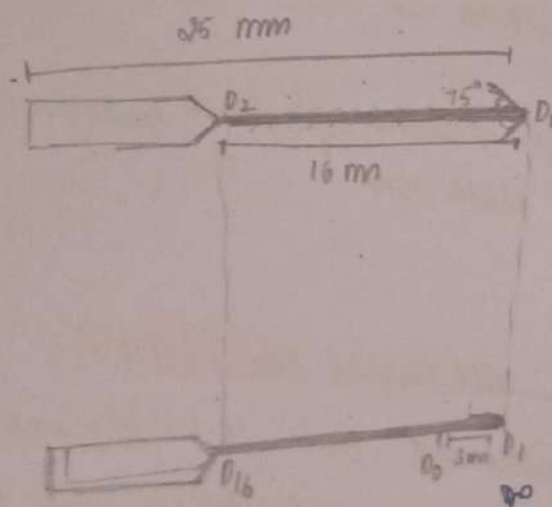
- the instruments are numbered from 10 - 150, each indicating the size of the ~~root~~ 1/100th millimeter of the tip.
- the size increase by 5 upto 60, eg. ~~10, 15, 25, 30~~ upto 60.
- then increases by 10 from 60, 70, 80, 90, 100.
- now it is added upto 140.
- the instruments are available in different sizes like 21, 25, 28, 32 etc.

4

- one tip angle is  $\pm 75^\circ$
- one working end, that is  $D_1$  to  $D_2$  is 16 mm, with
- ~~the instruments are colour coded  $D_2$  being 0.32 mm greater than  $D_1$  with taper of 0.02 mm.~~
- the instruments are colour coded for easier identification like (purple, grey, yellow black) etc... according to their size.

→ Newer additions:

- there is a  $D_0$  that is 3 mm apical to  $D_1$  &  $D_2$  is referred as  $D_{16}$
- there are greater taper cutting ends available like 0.02, 0.04, 0.06 etc.



⑧

Internal resorption

- Not seen clinically
- radiographically seen
- causes: pulp pathology or periapical pathology
- discolouration of teeth
- radiographically when you change one angle & ~~take~~ take repetitive radiograph radiolucency is seen from all one side

(SLO technique)

- ~~endodontic~~ pain
- haemorrhage
- Endodontic treatment

External resorption

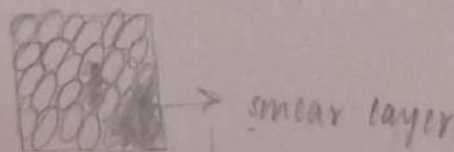
- you can see clinically
- radiographically not well differentiated
- causes: ~~gastro~~ gastric juices
  - ↳ internal: gastric juices
  - ↳ external: chemicals
- discolouration of teeth absent
- ~~teeth not seen from~~ resorption not appreciated from all one side

- sensitively
- no bleeding
- conservative treatment

## ⑩ smear layer in endodontics.

- smear layer consists of one debris & remnants of one dentin & one pulp with certain microorganisms.
- this smear layer is irrigated and cleaned before obturation.
- smear layer is formed due to the HPO mechanic preparation of the canal.
- if extended from one apical foramen it can lead to extrusion of the periapical region.
- if retained inside one cavity, it can lead to infections.

- There are 2 schools of thought about smear layer.
- some say that smear layer must be kept as it helps in bonding and also can form apical seal.
  - the other theory is that one smear layer must be removed as they may harbour infection.
  - it's a problem while obturating.



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## FIRST / SECOND / THIRD INTERNAL ASSESSMENT EXAMINATION

Name : ..... Reg. No. ....

Class : ..... Subject : ..... Date : .....

### SECTION

(a) Step back technique  
[Microscopic method]

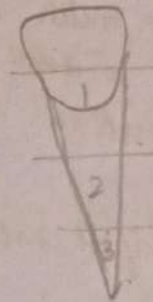


~~step~~

- apico-coronal preparation
- only hand instruments are used
- 1st apical portion is created, then coronal portion middle third, coronal third.
- one edge of the instrument becomes progressively larger.
- K files, G4 drills are used.

Types:  
conventional technique  
modified step back technique

Step down technique  
[crown down technique]



- coronal apico technique
- rotary instruments are also used.
- 1st coronal portion is made then apical portion middle third & in the last apical third.
- one edge of the instrument becomes progressively smaller.
- Ni, Ti files, G4 drills etc. are used.

Types: Step down (conventional)  
pressureless technique  
balanced force technique  
reversed balanced force technique



Apical seal already established  
 less chances of materials to  
 go to the periapical region  
 - less visualization

technique : Phase I :

establish one patency (w/ <sup>red</sup> working length)

start with #10 file E



use the watch winding motion to ~~then~~ remove the dentin

do 21w file the canal

do #11 till the file size becomes ~~20~~ #30

Phase II :

Phase IIa :

reduce the cone 1mm above the working length & use the next file size



use the file in watch-winding motion

Phase IIb : use one #4 drill to prepare the coronal portion of the canal

apical seal established latinos  
 less chances of it extruding into the periapical region  
 - more visualization

technique :

establish one patency of canal

use one #4 drills for the preparation of ~~canal~~ coronal part of the canal in progressively small file



use 2-flute file to prepare the canal with ~~less~~ redundancy taper

reduction in size of #4 drills

to prepare the apical portion

start with #50 file & keep redundancy the size of the file until we reach the working length

over use of #4 drills :



always recapitulate &  
purgate one  
canal.

phase V<sub>6</sub> :



phase V<sub>6</sub>

always recapitulate &  
purgate one canal.



very short answers :

(11) Pulp Tester :

Electric pulp testing it has 2 electrodes  
one is attached to the surface of one tooth with one  
electrolyte other is attached to the finger of one

patient to complete ~~making~~ circuit.

(12) If electric pulp testing is positive → pulp is  
vital.

It is better than other method as it is objective.

(12) General Purpose Aggregate :

- (12) - It is a root canal sealer that is widely used.
- Biocompatible.

⑬ RE prep :

~~EDTA~~

- A paste form of EDTA

- consists of : EDTA & 15% aqueous solution with  
no intra peroxide

⑭  $\frac{1}{2}$

increases surface tension

increases channel efficiency.

⑮ Hydrocortisone :

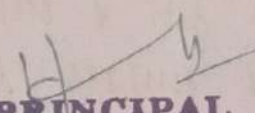
can be used as intra canal medicament

⑯ obtura :

~~41 points~~

⑰ - obt 91 which can be injected into one canal with a gun

⑱ - it is flowable.

  
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KumaraSwamy Layout,  
Bangalore - 560 078.

# Dayananda Sagar College of Dental Sciences & Hospital

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Kumaraswamy Layout, BENGALURU-560 078

## FIRST / SECOND / THIRD INTERNAL ASSESSMENT EXAMINATION

Name : MOBINFATIMA Reg. No. : 16D1633

Class : IV BDS Subject : PROSTHODONTICS Date : 31/11/19

### SECTION

2) Jaw Relation :-

It is defined as any relation of mandible to the manilla.

Classification of Jaw Relation :-

- ① orientation Jaw
- ② vertical Jaw Relation
- ③ Horizontal Jaw Relation

Horizontal Jaw Relation :-

It is defined as anteroposterior relation of mandible to the manilla.

There are two types of horizontal jaw relation

- i) centric relation
- ii) eccentric relation

Centric relation :- It is relationship of the mandible to the manilla when the mandible is in its posterior most position

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Bangalore - 560 078.

Eccentric relation :- It is the relationship of mandible to the maxilla other than centric relation

### Methods of recording horizontal Jaw Relation :-

#### ① Physiological Method

i) Tentative / interocclusal Jaw Relation

ii) Pressureless method

iii) Pressure method

#### ② Functional method

Needle trace method

#### ③ interoral method

interoral method

④

### Tentative / interocclusal Method :-

- It is the physiological method of recording horizontal jaw relation.

- In this method, the denture bases are used.

- Both the maxillary & mandibular denture bases with teeth arranged are used.

- First the maxillary denture is placed inside the mouth of the patient.

- Then mandibular denture is placed inside the mouth

- Make sure the occlusal surface of the teeth are not touching each other.
- Aluwon is added b/w the occlusal surface of both upper & lower teeth to prevent the contact.
- Then the patient is asked to do the various mandibular - jaw movements like swallowing.
- Once centric relation is recorded the denture bases are removed from the mould & placed on the secondary cast which are mounted on the articulator.
- Then the aluwon is removed from the occlusal surface of the teeth.

ii) Pressure less method to record the centric relation:

- i) Nick & Notch technique
- ii) staple rim technique

Nick & notch technique :-

- In nick & notch technique the nick & notch are made on the maxilla & though it made in mandible.
- In maxillary occlusal rim, a V shaped piece of the wax is removed in the posterior region.
- Both nick & notch are in V shape form.
- In nick the wax is removed throughout the occlusal rim.

- \* In notch the wax is not removed completely
- \* Nick prevents the antero posterior movement of the mandible
- \* Notch prevents the lateral movement of the mandible
- \* In mandibular occlusal rim though is made 13mm of the wax is removed from the proximal area & it extend till the distal surface.
- \* After making nick & notch & though the occlusal rims are placed inside the mouth.

To record the jaw relation, we can use

i) ZOE impression paste

ii) Aluwax

→ ZOE is made & mixed on the glass slab.

→ Petroleum jelly is applied in the nick notch & though area of the occlusal rim

→ ZOE paste is placed inside the though, & the patient is asked to close his mouth & swallow to get centric relation.

→ Before placing the denture bases the dentist should teach the patient to bring the his mandible in centric relation

i) Swallowing

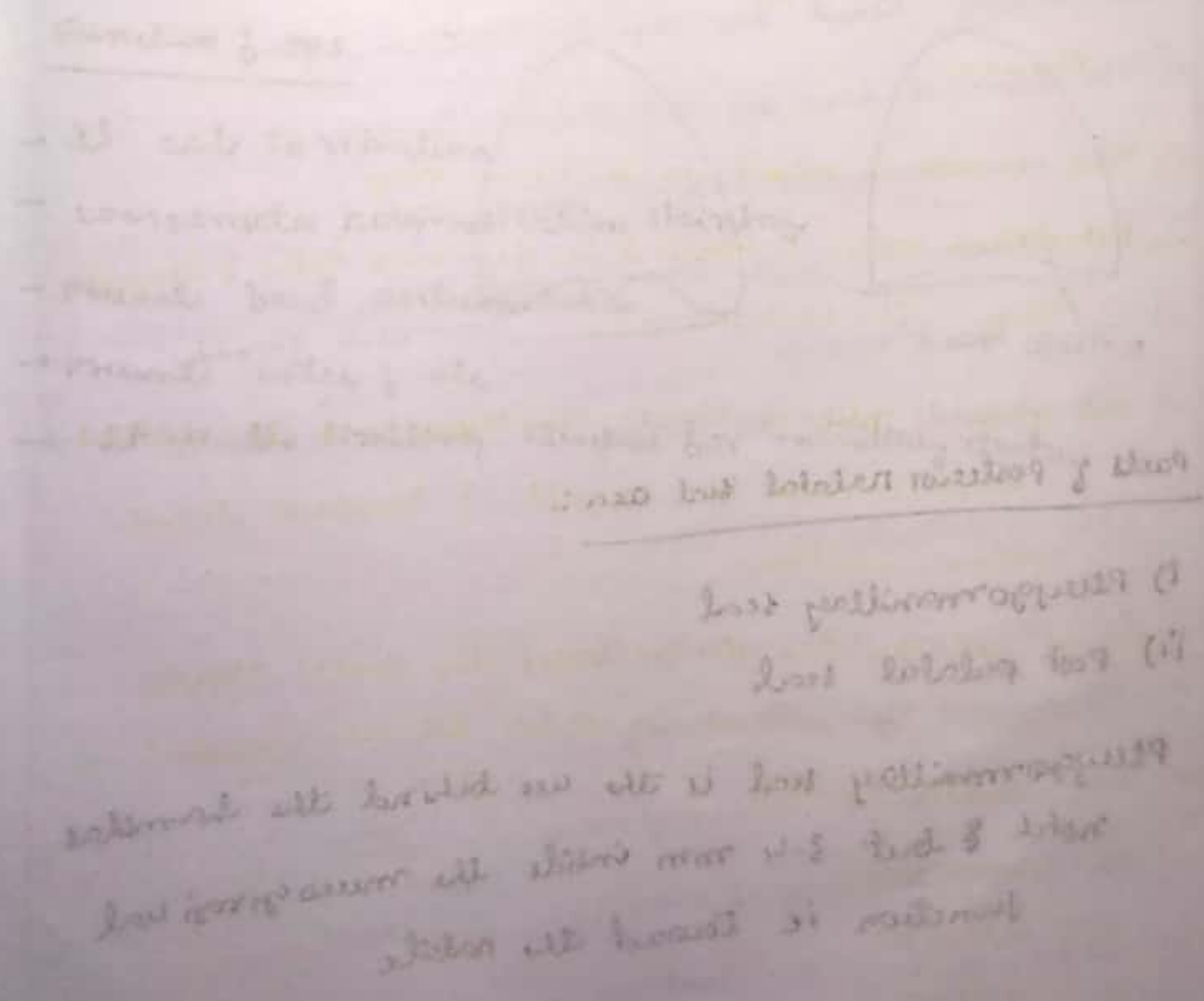
ii) Relaxing

iii) Resting

(ii) Pressure method:

- In this method the mandibular occlusal rim height is increased
- The maxillary occlusal rim is placed inside the mouth.
- The mandibular occlusal rim is softened with blow torch & dipped in hot water
- Then it is placed in the mouth & ask the patient to bite.

7



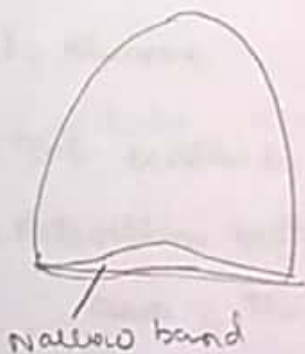


5) Posterior Palatal seal area:

Def:- PPS is the soft tissue at or along the junction of hard & soft palate where pressure within the physiological limit can be applied which aids in retention of the denture.

Type of PPS:-

- i) Arch shape
- ii) Narrow band shape
- iii) Lipid bow shape.



narrow band



arch shaped

Part of posterior palatal seal area:

- i) Pterygomaxillary seal
- ii) Post palatal seal

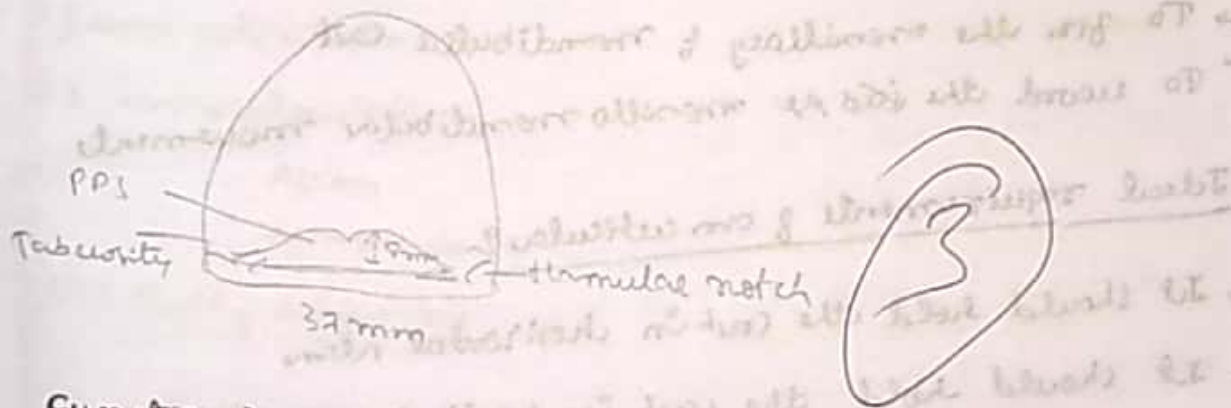
Pterygomaxillary seal is the area behind the hamular notch & but 3-4 mm inside the mucogingival junction i.e. toward the palate.

Post natal seal - Post natal seal runs from one  
hamulus notch to another hamulus notch.

→ The average of inter hamulus notch distance is 37.2 mm  
in males

→ In females inter hamulus notch distance is 35 mm.

→ The width of the PPS is 8 mm.



Function of PPS:

- It aids in retention
- compensates polymerization shrinkage
- Prevents food accumulation
- prevents entry of air
- It is the limiting structure for maxillary denture

Indication of use

- It helps in diagnosis of the fit
- Treatment for retention
- Anterior teeth compensation
- To study the soft tissue
- Evaluation of the denture
- For removal of the denture

## 8) Articulators:-

These are the mechanical devices which are used to represent the maxillo-mandibular relation & Temporo-mandibular joint movements.

-mandibular joint movements.

### Purpose of an articulator:-

- To fix the maxillary & mandibular cast
- To record the jaw or maxillo-mandibular movements

### Ideal requirements of an articulator

- It should hold the cast in horizontal plane
- It should hold the cast in vertical plane
- The distance b/w the cast should be fixed
- The movable parts should move freely
- The immovable parts should not move
- Easy to handle
- It should not be heavy

### Uses of articulator

- It helps in diagnosis of the TMJ
- Treatment planning
- Artificial teeth arrangement
- To study the cast & model
- Fabrication of the dentures
- For Reline of the dentures

## Classification:

### Based on theory:

- i) Bonwill theory articulator
- ii) spherical articulator
- iii) cone articulator

### Based on adjustability:

- i) non adjustable
- ii) semi adjustable  
    Alcon  
    Nonalcon
- iii) fully adjustable

### Based on movement:

- i) class I articulator - only vertical movement
- ii) class II articulator - horizontal & vertical movement but does not accept the face bow  
    type a  
    type b  
    type c
- iii) class III articulator  
    Horizontal movement  
    vertical movement  
    Accepts the face bow
- iv) class IV: All 3 dimensional movements & accepts the face bow

## Parts!

Upper member (triangular)

Lower member (L shaped)

condylar guidance (horizontal rod)

incisal guidance (vertical rod)

incisal pin

## Advantages!

1. So early we can see the occlusion & lingual cusp of the teeth

2. Tongue, saliva are not the interfering factors

3. Reduces the chair time

4. Reduces the patient appointment

5. Patient cooperation is not needed

## Disadvantages!

1. It does not give the exact records of TMT

\* Corrosion can be seen in metallic articulators

2. If any problem as there then that problem will be seen in the final denture

## 10) Factors affecting Retention of the denture:-

Retention is the ability of the denture to resist the force against the path of insertion like gravitation force

→ Retention prevents vertical displacement of the denture

### Factors affecting:

#### i) Physiological factor

Saliva

Adhesion

Cohesion

Surface tension

#### ii) Mechanical factors:

Endeucts

Magnets

Denture adhesives

#### iii) Physical factors:

i) size of the denture bearing area

ii) quality of denture bearing area

### Physical factors:-

i) size of the denture bearing area - size of the denture bearing is directly proportional to the retention of the denture

\* Dentures with large denture bearing area have more retention when compared to small denture bearing area.

## ii) Quality of denture bearing area

Presence of lumpy tissue will decrease the retention of the denture.

## Physiological Factors

### i) Saliva

- \* Saliva aids in retention of the denture. It forms a thin film b/w the tissue surface & the denture surface.
- \* It creates negative pressure.
- \* If the saliva is more viscous then retention is not good.
- \* In case of xerostomia - less secretion & decreased retention can be seen.

### ii) Adhesion | attraction b/w the dissimilar materials

A thin adhesive film layer is formed b/w the denture & the tissue surface which aids in retention.

### iii) Cohesion | attraction b/w the similar materials

iv) Surface tension: It forms the suction b/w the denture & tissue surface.

FIRST / SECOND / THIRD INTERNAL ASSESSMENT EXAMINATION

Name : MOBINA FATIMA Reg. No. : 601633

Class : IV Subject : PROTHO Date : 31/12/19

SECTION

Mechanical factors:

(i) Undercuts : These are led lines of undercuts

i) Favourable - help in retention

ii) unfavourable - Do not enhance the retention

ii) magnets : magnets were used to enhance the

4

retention of the denture

ii) denture adhesives : These are the material which increases the retention of the denture.



## ⑥ Advantages of metallic denture base over Acrylic denture base

→ Metallic denture bases have more retention when compared to acrylic denture bases. Because the thickness of acrylic denture should be 1.5 to 2mm.

But the metal metallic denture can be fabricated thinner than the acrylic

→ Maintain the temperature.

• Acrylic denture base are non conductor of heat

• Metallic denture base maintain the heat

• Heat is generated

→ Strength:-

→ Metallic denture base have more strength compared to acrylic

• Acrylic base gets easily broken.

→ Acrylic denture bases are weaker than the metallic denture base. It can occur due to the porosity of the material.

In metallic denture base no risk of porosity

→ Adaptation to the tissue surface is better in metallic denture base.

→ The only disadvantage is they are esthetically inferior than the acrylic denture base

7

Anterior Teeth Selection

- Anterior teeth selection is done based on the
- i) size
  - ii) form
  - iii) color

Anterior teeth selection is done based on

i) Age :- In younger patients the color of the teeth

is

Size %

Age, Sex

- > width of the face
  - > size of the nose
  - > shape of the nose
  - > Deviation of the nasal septum
  - > Distance b/w the eyes
  - > color of the eye
  - > color of the face
  - > color of hair
  - > color of skin
  - > Facial profile
  - > Facial form
  - > lip support
- > Pre-orthodontic photos
  - > Radio graphs
  - > Picture of close relatives
  - > Compare the family member teeth

- Based on musculature

- size of the lips

- thickness of lips

- In younger patients the color of the teeth should be more whitish than old age patient. Because of erosion of dentin is more in old patient

- In females the angles are more rounded than male

- In male the canine are more prominent.

### Squint test!

- It is used for shade selection of the artificial teeth.

- In this test the dentist should close his eyes partially & observe under the natural sun light & check the complexion of the patients face.

9/2

### 3) Residual ridge resorption:

It is the amount of bone resorption that takes place in the maxillary & mandibular arches

#### Causes:

- Prolonged period of edentulism
- Muscular factors
- Health status

In case of diabetes the bone resorption is more when compared to the normal person

→ It can also occur due to the dentures. Prolonged use of dentures can increase the resorption of the bone

→ In case of any bone disease resorption is more

→ At the age

→ Age factors: As the age increases bone resorption also increases.

#### Classification of ridge resorption:

Class I: No resorption

Class II: Moderate resorption (Bone resorption less than 1/3rd of the height of bone)

Class III: Severe resorption (More than 2/3rd of bone is resorbed)

It is seen in case of diabetics

Features Features:-

- > Decreased vertical dimension
- > the lips will collapse
- > wrinkles around the mouth & cheek
- > Difficulty in taking ~~optimum~~ impression
- > The lower facial height decreases
- > Decreased or no retention of the denture.

9  
Prevention:-

- > ~~Keep~~ Avoid wearing of the denture during night
- > The patient has to take keys to change the denture frequently.
- > The patient should not use the denture for very long time
- > Control of diabetes

## 9) Balanced occlusion!

Balanced occlusion is defined as the occlusion formed by the upper & lower occlusal surfaces of the upper & lower teeth both in right & left side & also anteriorly & posteriorly - only in both centric & eccentric occlusion / relation of the teeth.

### Types of Balanced occlusion

- (i) Unilateral Balanced occlusion
- (ii) Bilateral Balanced occlusion
- (iii) Anterior Balanced occlusion
- (iv) Posterior balanced occlusion

### Features of balanced occlusion!

- ↳ All the contacting surfaces of the both upper & lower teeth should occlude properly
- ↳ There should be no interference in occlusion
- ↳ There should be any neutral / meso occlusion
- ↳ In rest position the teeth should occlude in centric relation

### Significance of Balanced occlusion!

- Balanced occlusion should be maintained in artificial teeth
- Balanced occlusion provides neutral zone
- It helps in proper occlusion (biting) of the denture
- If the balanced occlusion is not maintained then will be stress to the muscle

& more pressure will be applied on the oral structures

↳ It maintains the proper occlusal & overbite.

↳ The muscles & lig & other structures are relaxed in this occlusion

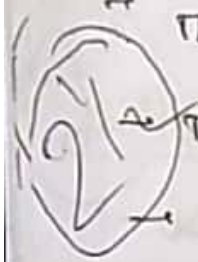
↳ If there is no balanced occlusion

→ Difficulty in swallowing because the contact relation is not maintained

↳ The muscles are not relaxed

↳ TMS associated problems

↳ Improper occlusion has the opposing teeth.



## (11) Neutral zone.

- Neutral zone is the space b/w the teeth & gums on side & cheeks on the other side
- It should be maintained in case of complete denture because it maintains the cheek support & fullness.

- 2
- If the space b/w the cheek & the teeth is more than cheek support will be lost
  - If the teeth are very close to the cheek (less needed space than cheek bite can occur)

## (12) Bennett movement & Bennett shift

Bennett movement: It is the bodily lateral shift of the condyle along with the condylar guidance

Bennett movement: It is the bodily lateral movement of the condyle along with its condylar guidance in lateral mandibular movement

2  
Bennett shift: lateral tipping (tilting) of the condyle during lateral mandibular movement



⑬ selective pressure technique :-

It is type of impression technique in which pressure is applied in reticular areas while taking impression & few areas where pressure is not applied are relieving areas

②

Ex: - incisive papilla

and reticular papillae

It is the combination of both mesial and mesio compressive impression techniques.

impression material used are :- ZOE

low viscosity elastomer

⑭ stress bearing areas in mandible :-

Primary stress bearing areas :- Posterior slope of residual alveolar ridge, Hard palate

Secondary stress bearing areas :-

Basal

mandible, tuberosity

②

Mandible

mental foramen

genial tubercle

mylohyoid ridge

Buccal shelf area

residual alveolar ridge

retro molar pad

⑤ Types of denture teeth

- i) acrylic teeth
- ii) metallic teeth
- iii) Gold occlusals
- iv) Porcelain teeth
- v) Special form of teeth  
to give gold occlusion



- 
- i) anatomic :  $20^\circ$  axial angulation (cusp teeth)
  - ii) non anatomic  $0^\circ$  angulation (cylinder teeth)
  - iii) semianatomic teeth  $10-15^\circ$  axial angulation

## ④ Advantages & Disadvantages of immediate denture

### Advantages

- Immediately after the extraction the denture can be given
- The oral structures like alveolar bone, vertical height is preserved
- Psychological benefit
- esthetic
- Functionally useful
- we can maintain function, form & esthetics of the patient
- Resorption of the bone is prevented
- Musculature is maintained
- Immediate denture is useful for the protection of the bimal (FP denture)
- we can do the correction in bimal denture
- More time for the fabrication of bimal denture
- It can be relined and rebased

# Dayananda Sagar College of Dental Sciences & Hospital

6071 Kumaraswamy Layout, BENGALURU-560 078

FIRST / SECOND / THIRD INTERNAL ASSESSMENT EXAMINATION

Name : MOBINA FATIMA Reg. No. : LC0633

Class : A Subject : Prosthodontics Date : 2/12/19

## SECTION

### Disadvantages of immediate dentures

- 1) Economically it not accepted by few patients
- 2) Geriatric patient in whom it is difficult to do the whole procedure again for the fabrication of CD
- 3) Patient who are not willing
- 4) Very old patients
- 5) Mentally compromised patients

3

## ① Treatment planning in complete dentures

Treatment planning in complete denture is based on case history taking, clinical examination, Radiographic evaluation is done

Depending on the case the procedure can be

→ 5 visit procedure

→ 7 visit procedure

→ 9 visit procedure

Treatment planning involves

i) History taking :-

ii) medical history, past dental history, reason of tooth loss all these are recorded

ii) clinical examination :-

examination of the hard tissue & soft tissue is done

iii) Radiographic evaluation :-

Presence of any retained tooth, cyst, tumor, bone incule, ton loss to be checked

- Primary Impression / Diagnostic impression is taken
- Diagnostic cast is nowed.
- Enaminalities of the diagnostic cast
- Successing
- 

Treatment plan & in CD is based on

- i) Patient's expectation
  - ii) Previous denture
  - iii) State of the current denture
  - iv) Mental attitude of the patient towards the dental treatment
  - v) Condition of the current denture
  - vi) Pre extraction records
  - vii) Radiographs
  - viii) Picture of the patient before the extraction of teeth
  - ix) Age of the patient
  - x) Sex of the patient
- condition of the residual alveolar ridge
  - Health status
  - Nutrition
  - underlying disease
  - ① Bone diseases

① cardiac disorder

② endocrinal disorders

③ Joint diseases

④ Metabolic disease

⑤ Presence of any pathology, cyst, tumor, tori etc

→ Economic status of the patient

① Patients expectation:-

→ In young patient esthetic is more important.

→ In old patient function is more imp than esthetic

② Previous denture:

→ If the patient was happy or not with the previous denture

→ Any modification the patient wants.

→ If the patient was satisfied by the denture or if not why?

The Reason should be asked so that it can be corrected.

③ Condition of the current denture:

→ Condition of the current denture should be checked  
sq it is ill fitting

Retention is lost

→ Reason for getting the new denture

#### ④ Mental attitude of patient

→ If the patient is forcefully ready for the treatment by the family members & friends

For such case it is very difficult to manage the patient

Based on mental attitude patients are classified into

\* Cooperative

\* Hysterical

\* Indifferent

\* Reasonable

#### ⑤ Economic status of the patient

Patient from higher socio economic status are more concerned about their esthetics

Patient from low socioeconomic status are less concerned about their esthetics

#### ⑥ Pre-entraction records, Radiographs & photos

Pre-entraction records, photographs help in radiographs help in selection of teeth, color of teeth etc

#### ⑦ Age & sex of the patient

Female patients are more concerned about their esthetics than male patient



⑧ Condition of the residual ridge

Amount of resorption of bone

⑨ Underlying diseases

→ Removal of the cyst, tumor & root

→ Pre prosthetic surgery should be carried out

Frenectomy

Excision of bony spicule

Flabby tissue removal

Excision of retained tooth, root stump



TMT disorder :-

Case must be taking while taking the impression & doing jaw movement

→ Endocrinal disorder :-

Bone resorption is more in DM

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Dayananda Nagar College of Dental Sciences  
Kumaraswamy Layout,  
Bangalore - 560 078.

## FIRST / SECOND / THIRD INTERNAL ASSESSMENT EXAMINATION

Name : Shreshth Adavei Reg. No. 19D0099

Class : IV BDS Subject : Pedodontics Date : 06/01/2023

### SECTION

40  
70

MM

Q1)

Ans) Normal occlusion is defined as the normal, bilateral, continuous contact of the maxillary and mandibular teeth, in both centric and eccentric position.

→ It is characterised by the normal, comfortable and harmonious relationship between the teeth, palatal structures, and oral musculature.

→ Normal occlusion is essential in keeping, and maintaining oral health.

→ In cases of malocclusion, (deviation from normal occlusion),

it predisposes the patient to many various ailments and conditions

→ these conditions can make various health surfaces much harder to clean, thus increasing the risk of ~~denture~~ food impaction

and dental caries

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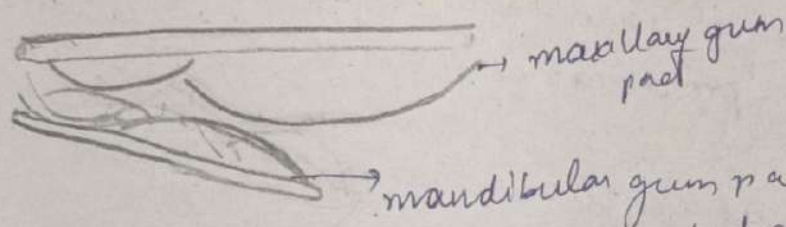
## Development of normal occlusion

### Birth - eruption of deciduous teeth

→ The oral cavity of the infant is very different from the oral cavity of the adult.

→ In infants with maxillary and mandibular gum pads,

there exists a transient malocclusion known as INFANT OPEN BITE



In this, the maxillary gum pad is extruded a bit more than mandibular gum pad, creating an artificial open bite

This is transient in nature, and corrects itself with age, with no need of intervention.

With the eruption of the deciduous incisors, the question of overjet and overbite comes into view.

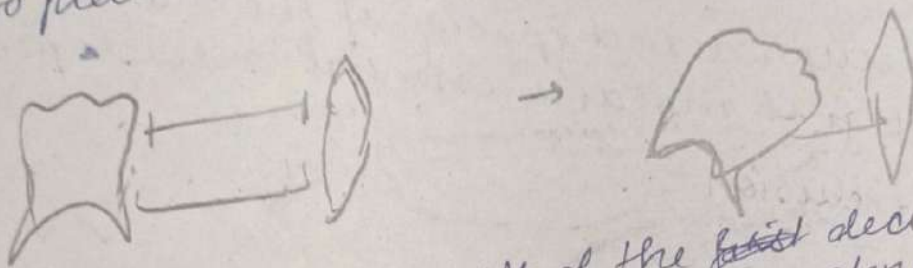
The ideal overjet and overbite

# ERUPTION OF FIRST PERMANENT MOLAR

→ The mandibular first molars are ~~the~~ usually the first to be erupted from deciduous dentition.

→ The subsequent space created is essential in the development of normal occlusion in later life.

→ The use of space maintainers may be indicated to prevent the mesial drift of the other molars

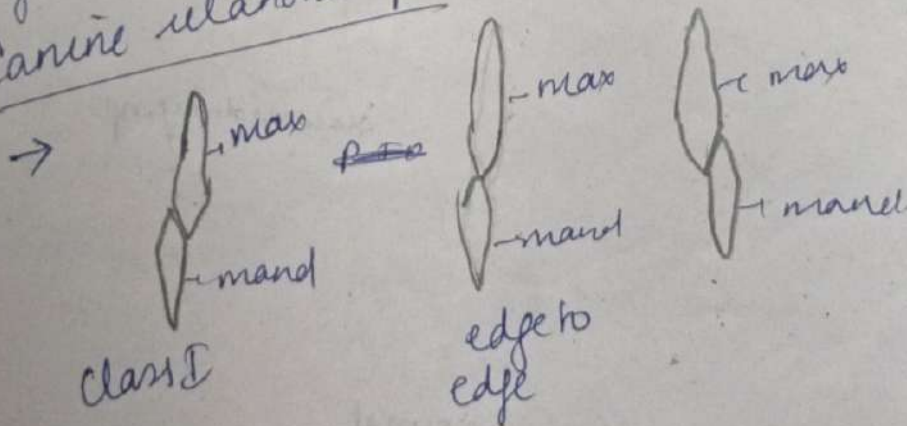


→ The mesiodistal width of the first deciduous molar is greater than the erupting premolar replacing it.

The leftover space created is called the Leeway space of Nance

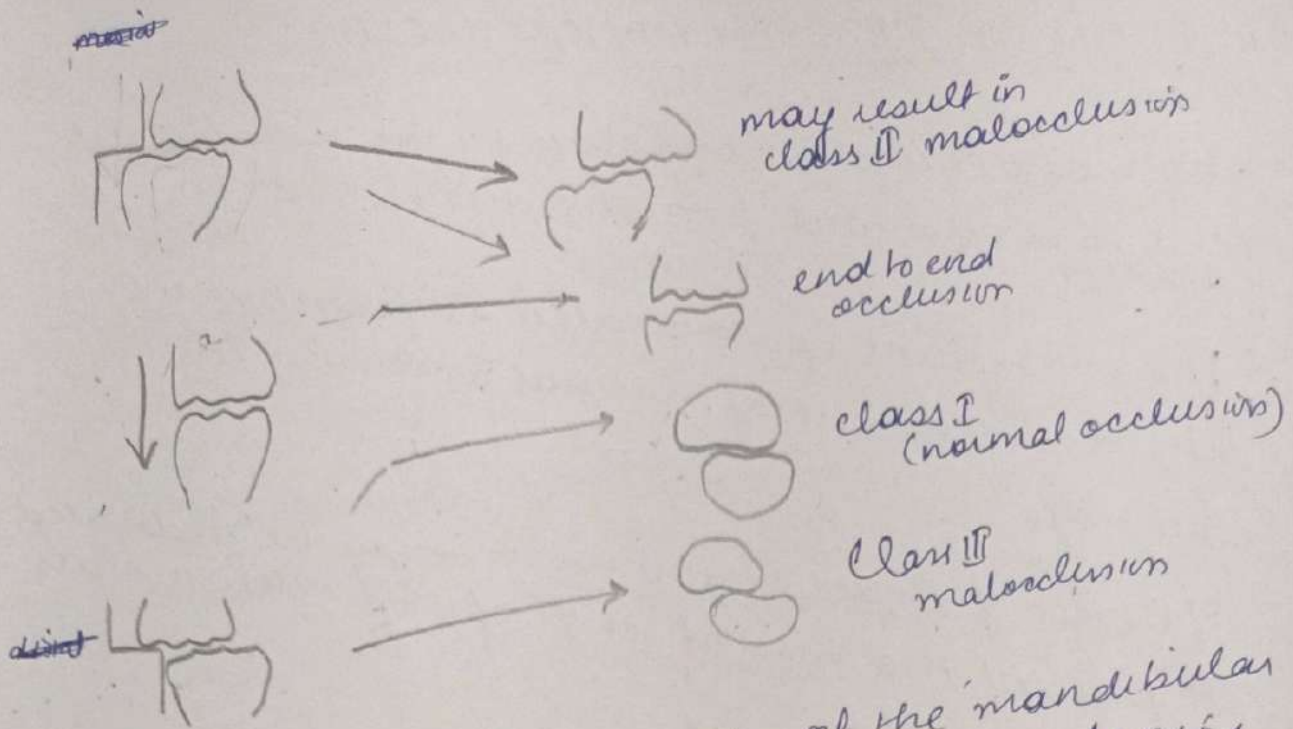
→ The union of Flush terminal plane, mesial and distal step → also essential in future occlusion

Canine relationship



Class I

edge to edge

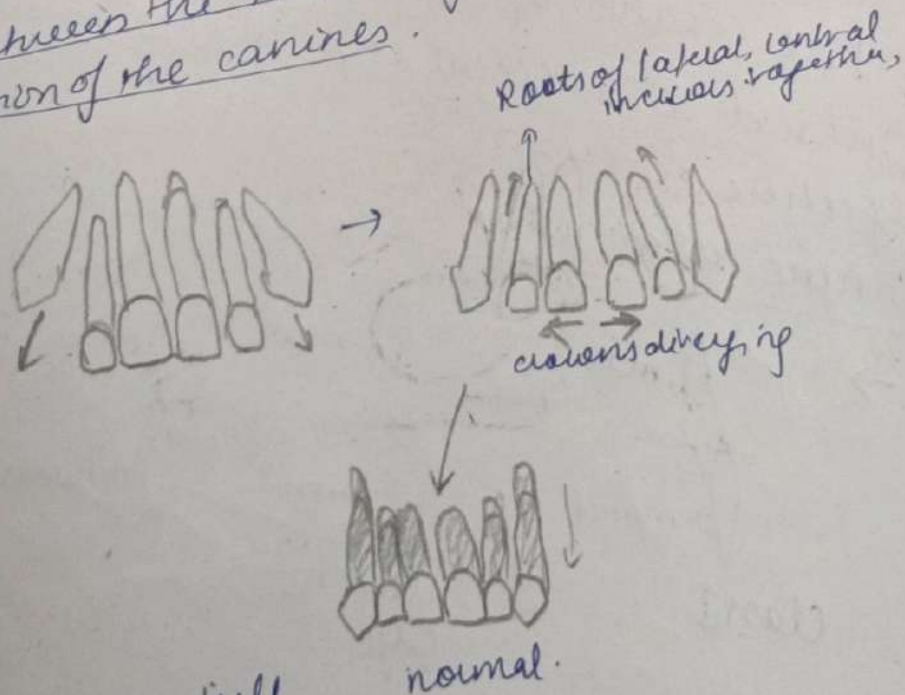


Thus, the eruption and spacing of the mandibular permanent first molar is essential to develop normal occlusion

### UGLY DUCKLING STAGE

- This is a transient malocclusion, that nonetheless has significant aesthetic and psychological effects on the child.

In this, a temporary midline diastema is created between the maxillary incisors due to the eruption of the canines.



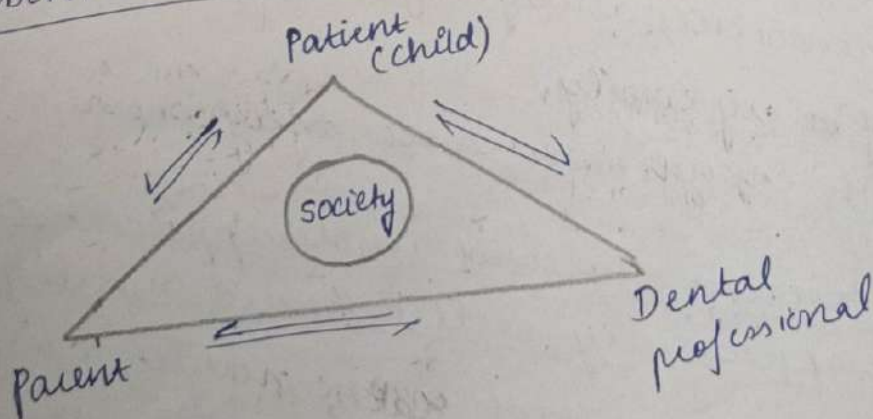
It resolves by itself

Q2)

Ans)

- Behaviour can be defined as the external manifestation <sup>and appearance</sup> and ~~in~~ means of interaction of an individual with his/her surroundings.
- It is primarily a social, sociological phenomenon, may not have to do entirely with internal psyche and psychological state of the patient.
- Behaviours can be learned, and inculcated during the events of an individual's lifetime.
- In a clinical setup, the dental professional comes across many types of behaviours in a patient.
- In children, these behaviours may be an indication towards the parenting style of the parent, and the child's interaction with society.

PAEDODONTIC TRIANGLE



According to this there are various types of behaviours seen in children,

Some can be conducive or beneficial to dental treatment, and some can be a hindrance

According to parenting style, behaviours are classified into -

(1) Warm, caring parents (mothers), who give the child adequate freedom, chance to explore and learn.

→ produce remarkably well adjusted, calm, curious children.

→ children will have curiosity towards the treatment, and will ask questions, but will mostly remain calm and sensible throughout the course of the treatment.

→ ideal patients for treatment

(2) Overbearing, overprotective, overanxious parents.

→ produce children who behave ~~see~~ in a very scared, overanxious, fearful children manner

→ These children have no confidence to say things for themselves, always refer to ~~parents~~ parents for help

→ May ~~be~~ cry easily,

→ with enough assurance, may consent for treatment

(3) Emotionally neglected, underappreciated children  
may appear very well behaved initially,

but may prove problematic nature later on.  
May cry easily, may create scenes to draw attention to oneself.

#### (4) Victims of child abuse

- may show characteristic STOIC behaviour
- may appear cold, detached, unemotional and sullen
- will comply with instructions out of fear of the ~~parent~~ parent.
- May cry easily out of fear of consequences of not complying with instructions

#### (5) Authoritarian parenting styles → produce children with aggressive, fearful children who may fear disciplinary action.

- with enough love and care → may comply with treatment

#### (6) Overindulgent parenting style → may produce spoilt, bratty, uncooperative children

- These children may not know how to behave in a clinical setting, and may throw severe temper tantrums on being ~~denied~~ denied things.

### NON PHARMACOLOGICAL BEHAVIOUR MANAGEMENT

- [1] Both parent and child have to be treated with respect and care in the clinic.  
First appointments may create a lasting impression, so care should be taken.
- [2] In nonpharmacological behaviour management, the importance of clear honest COMMUNICATION is indicated.



(3) In communicating with ~~children~~, the parent, the communication should be clear, and honest, so as to assuage any feelings of discomfort or fear.

(4) open communication as to the wishes of the child and parent is essential

(5) In talking with children, the use of EUPHEMISMS is highly indicated.

This does not necessarily mean 'baby talk' but putting complex or scary terms in simple child friendly language.

→ one should talk at the level of the age of the child, an eight year old must not be spoken to as a three year old, and vice versa.

eg. Acrotol → whistling willy  
Fluoride gel → cavity fighter  
injection → mosquito bite.

(6) The following of the Tell Show Do method is also indicated

→ In this method,

[1] The child is first Told about the procedure and how it normally goes, like a story,

[2] Then the child is shown<sup>n</sup> the different instruments and implements used in the procedure, and perhaps shown the procedure done on someone else

The child may be allowed to interact with the instruments in a controlled, safe manner

[3] Finally, the procedure is Done on the child.

5

Q3)

Ans) ECC → Early childhood caries is a disease of primary dentition.

→ can be defined as the presence of one or more [1] Decayed, [2] Filled, or [3] missing teeth in a child below the age of 71 months [6 years].

→ Management of ECC

→ Prevention

→ As stated many times → prevention is better than cure.

• In early childhood caries the prevention methods, and management methods may differ ~~to~~ based on the background of the child

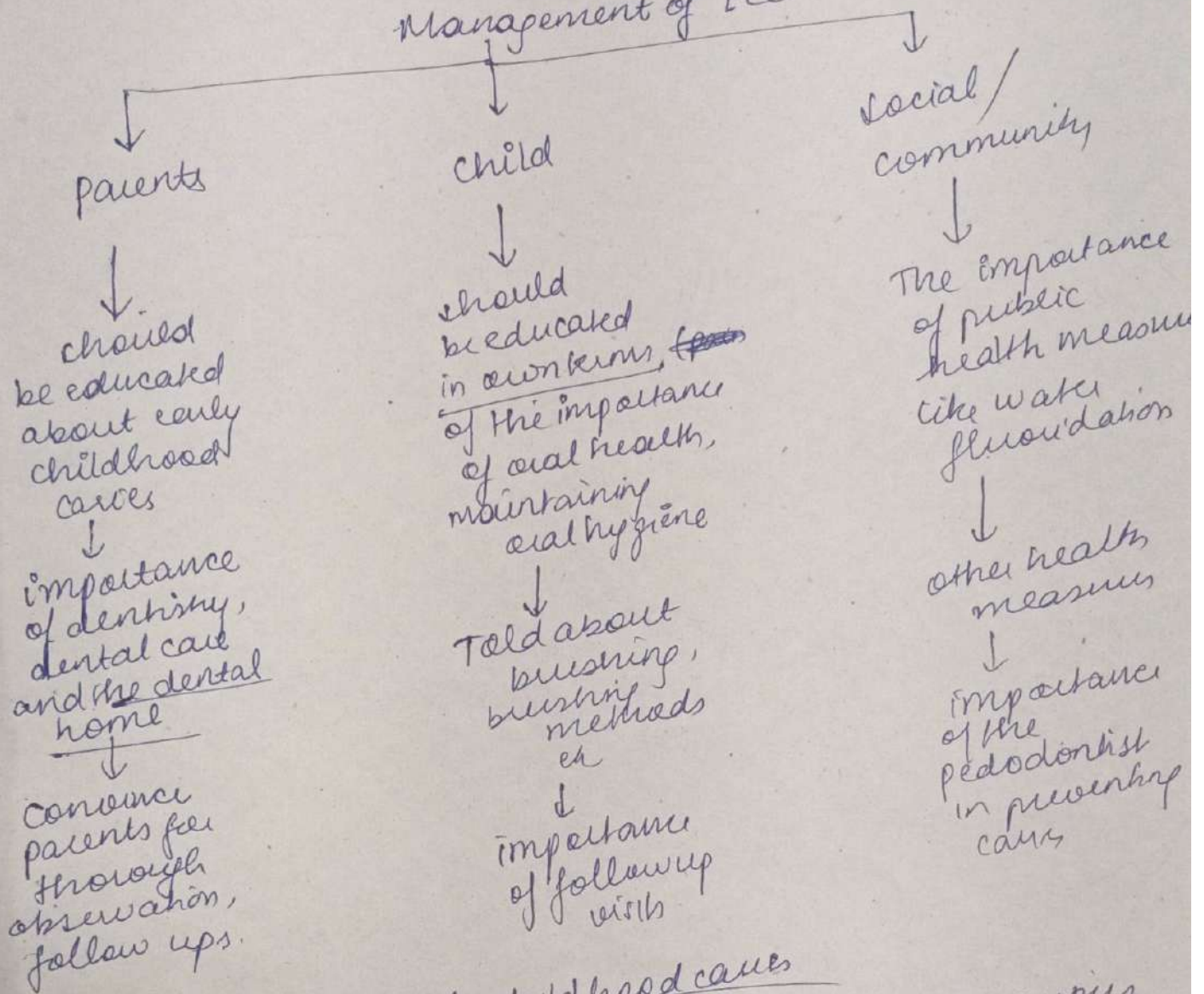
→ (1) At risk communities should be the prime target of preventive methods against ECC

These may include

- (1) people of low socioeconomic background, who have no awareness of conditions
- (2) <sup>Both</sup> working parents who do not pay attention to the diet; dietary needs of the child.

In this way

## Management of ECC



### In treatment of early childhood caries

→ depending on the depth and nature of the carious lesion / lesions, various treatment modalities used

- (1) Restoration → GIC or others
- (2) Pit fissure sealant
- (3) Root canal or pulpotomy / pulpectomy



Name : Shreshth Adan Reg. No. 19D0099

Class : IV BDS Subject : Pedodontics Date : 6/1/23

SECTION

Q4)

Ans) ① Social learning theory is a behavioural theory of child psychology and development

② It was given by Albert Bandura

③ It states that a child's personality and behaviours are learnt by observation and imitation of the child's surroundings

④ In this, the presence of a model is of prime importance

⑤ Bandura diminished the role of psycho analysis, and hidden drives, to show that behaviour is mainly a learned, sociological phenomenon

⑥ In the social learning theory, behaviours and actions are demonstrated by certain models of in society, learned, imitated

⑦ In this theory, certain role models have prime importance, their behaviours are learned and imitated.

eg. certain attractive, dashing action heroes in movies may serve as role models for children. These children then learn, and copy these behaviours.

In other scenarios, attractive, trustworthy actors/ stars may serve as role models in advertisements as well, convincing the child to buy the product.

In dental set up, the presence of role models, like perhaps an older sibling who undergoes the procedure before the child, may influence the behaviour of the child during the procedure.

→ If sibling is crying → child will also cry  
sibling is cooperative → child will be cooperative

Q5)  
Ans)

### Affected dentin

(1) It is the part of the dentin which has not primarily been attacked by the microorganisms, but is affected by the attack

(2) Has low <sup>non</sup> bacterial load.

(3) It's light brown in colour

### Infected dentin

(1) It is the part of the dentin which has been primarily attacked by microorganisms.

(2) There is presence of bacteria in these lesions

(3) It's darker, blackish in colour

(4) collagen has not been irreversibly denatured

(5) can be remineralised

(6) in conservative reparations, can be spared.

(4) collagen has been irreversibly denatured

(5) cannot be remineralised

(6) must be completely excavated

Q6) 3

Ans) Direct pulp capping

(1) In this procedure, caries has extended ~~at~~ the way deeply into the dentin

(2) Cavity preparation has extended very deeply as well, and there is ~~for~~ pulp exposure (pinpoint)

(3) In this case, cavity preparation is stopped, and the cavity is restored with restorative material like Dycal ( $\text{CaOH}_2$ ), MTA.

Indirect pulp capping

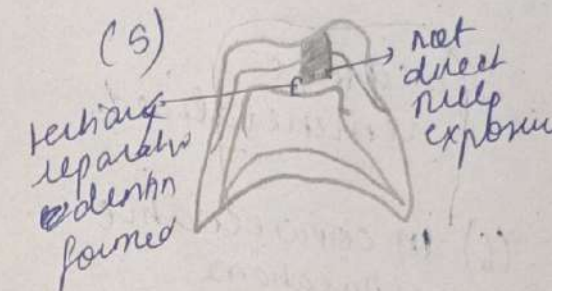
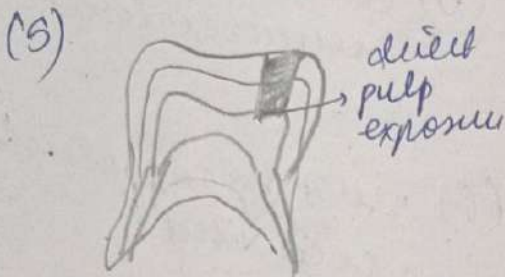
(1) In this procedure, caries has also extended deeply into dentin

(2) Cavity preparation has extended deep into dentin, and there is fear of pulp exposure. However, pulp has not been exposed yet

(3) In this case, the remaining dentin is left untouched, and cavity is restored with  $\text{CaOH}_2$  and other medicaments. Patient recalled after 3-4 months, after which informed

(4) Doesn't rely on tertiary dentin formation.

(4) Relies on tertiary dentin formation.



(6) Failure of restoration  
→ pain for patient

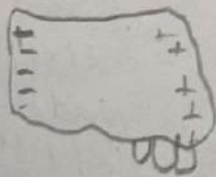
(6)

(Q7)

Ans)

① The maxilla is one of the prime bones that undergo bone changes.

② Post-natally, the size of the maxilla increases immensely, due to resorption and deposition of bone



③ The primary changes in the maxilla are seen due to the displacement and drift of maxilla

④



④ Displacement divided into

① Primary displacement

- Due to changes in the maxilla itself, due to resorption and deposition of bone
- This ~~pushes~~ <sup>maxilla mostly grow</sup> ~~forwards~~ forwards

② Secondary displacement

- This is due to changes in the cranial base due to resorption and deposition of bone
- This <sup>cranial</sup> pressure pushes the maxilla forward

③ Fusion and development of maxilla

- Before ~~the~~ late adolescence / adulthood, the suture palatal shelves have not yet fused.
- Fusion of palatal ~~suture~~ suture occurs at adulthood

↳ In dentistry,  
clinical application

- Certain appliances in orthodontics must be given before the age of adulthood for maximal <sup>efficient</sup> results. While maxilla is still growing

↳ Rapid Maxillary palatal expansion can only be carried out before fusion of palatal suture, so should not be prescribed for adults

Habit fixing, breathing appliances

Q8)

Ans)

### Importance of dental home

- ① The dental home is ~~the~~ an institution achieved by the joint cooperation of the parents, family members, ~~and~~ child, and pedodontist.
- ② It includes the ever present honest, joint communication, and efforts of the parents; child, and pedodontist.
- ③ Its significance cannot be denied in providing
  - (1) Early, prompt intervention in the resolution of oral health issues
  - (2) Spreading of oral health awareness, and knowledge
  - (3) Establishing trust, and open communication between the pedodontist, and patient
  - (4) Proper surveying of the overall development of the child.

2

(Q9)

Ans)

① Serial extraction is a procedure which involves the extraction of ~~one~~ one or more primary and permanent teeth, so as to facilitate the development of optimal occlusion and/or minimize or eliminate the treatment time for orthodontic procedures.

→ ② Most commonly involves extraction of  
• deciduous molars, and permanent first premolars

③ 4 methods

[1] Tweed's method - D-C-4.

→ In this method, primary molar is extracted first  
↓ after 4-10 months  
deciduous canine extracted  
↓  
perm first premolar extracted

[2] Devey's method - C-D-4

→ First primary canine is extracted  
↓  
then primary first molar  
↓  
then permanent first premolar is extracted

[3] Nanci method → based of Tule's method  
→ D-4-C

First permanent molar is extracted

↓  
Then permanent premolar

↓  
primary canine

[4] Balton's method → four step process

B-C-D-4

(1) First <sup>dec</sup> lateral incisor extracted

(2) Then deciduous canine

(3) ~~dec~~ Then deciduous first molar

(4) Then permanent first premolar

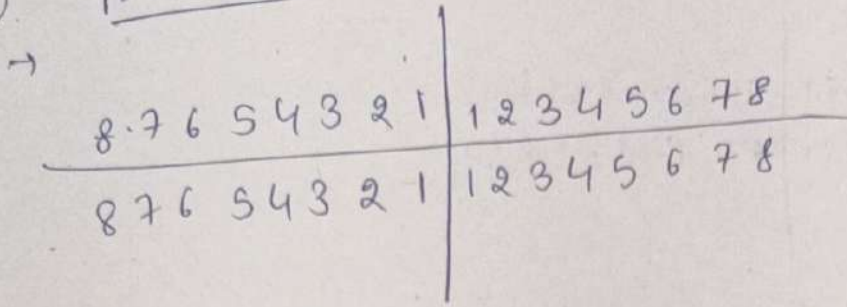
A  
Q10)

Ans) Teeth numbering systems are various methods of classifying ~~various~~ and numbering the teeth in the oral cavity.

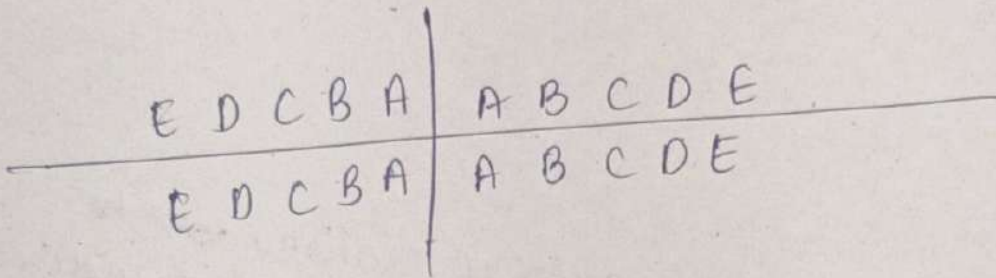
various systems exist, such as

(1) Zeigmondy palmer system

① Permanent dentition



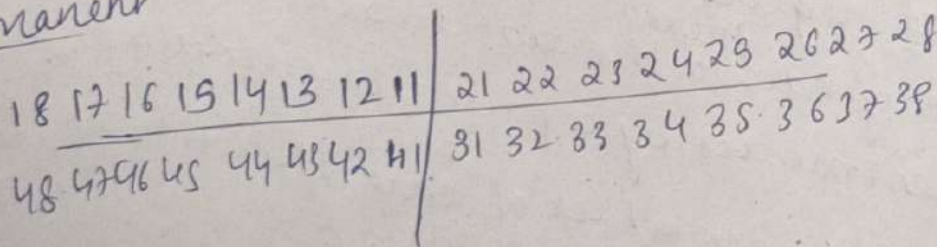
Primary dentition



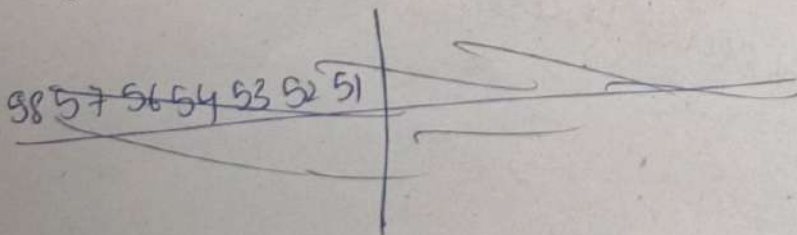
primarily a crisal system  
 eg. A → upper right <sup>deciduous</sup> central incisor

[2] FDI system → Federation Dentaire International  
 Each quadrant assigned a number <sup>most accepted internationally in Europe</sup>

Permanent



primary



primary

55 54 63 82 51	61 62 63 64 65
85 84 83 82 81	71 72 73 74 75

• ADA system → American dental association system  
→ most followed in america

Q10)

Ans) Pedodontics is the branch of dentistry to address the oral health concerns of ~~infants~~ individuals from birth till the age of 15.

Q12)

Ans) ① Dental neglect → It is the intentional or unintentional absence of care to the oral health needs of children/minors by a parent/authority figure  
e.g. Ignorance or lack of care shown to caries, cavities in young children

② constitutes child abuse

Q(13)

Ans) Oedipus complex

- ① Given by Sigmund Freud
- ② Based on the story of Oedipus, King of Thebes
- ③ Occurs during phallic stage of development
- ④ States that ~~the~~ young boys start to be envious of their fathers, and start to love or be sexually attracted to their mothers

Q(14)

Ans) Natal teeth → teeth present at birth

Neonatal

Q(15)

Ans) Type 1 GIC → lining

Type 2 → restorations

Type 3 → lining

Type 5 → euterochlorite restorations

Type 6 → core buildup

Type 8 → used for ART

Type 9 → used for geriatric, paediatric patients

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Bangalore - 560 078.

I Internal Assessment

Sub: Periodontology

$5\frac{1}{2} = \frac{52.5}{75}$

Atika Ifath<sup>15</sup>

IV BDS

14D1605

23-02-2021

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Dayananda Sagar College of Dental Sciences  
KumaraSwamy Layout,  
Bangalore - 560 078.

Long Essay.

17 The Principles of Periodontal Instrumentation are as follows:

- 1> Patient's and Operator's position - Accessibility
- 2> <sup>Visibility</sup> ~~Regret~~, Illumination and ~~Accessibld~~ Retraction
- 3> Maintaining a Clean field
- 4> Instrument Stabilisation - Instrument grasps and finger rests.
- 5> Instrument Activation - Adaptation, Angulation

\* Patient's and Operator's position

- \* > Operator's position should provide proper accessibility to the region of working.
- > Operator's feet should be parallel to the floor and the elbow of the working hand should be at the level of patient's shoulder level.



- > Operator's back should be suited properly and Operator should not bend more towards the patient.
- > Operator's position for right handed person for working on the third quadrant 9'o clock position
- > For working of lower anterior and Maxillary palatal aspect and lingual aspect 12'o clock position or 11'o clock position is more recommended.
- > The patient's position is usually supine with the head suited on the head rest and the shoulder level of the patient is near to the elbow level of the operator.

### \* Visibility, Illumination and Retraction

- > Proper visibility of the working area is a necessary factor.
- > Proper Illumination to the accessible area is needed.
- > Light dim illumination should not be used.
- > Dark, strong illumination to the accessible area plays an important role in case of working.

\* Retraction

- > The area to be accessed should be ~~retained~~ made accessible by retracting the adjacent tissues.
- > Retraction can be done using mouth mirrors, finger can also be used to retract the oral mucosa.
- > Retractors can also be used.
- > They provide easy accessibility and working on the patients.

\* Maintaining a Clean field.

- > The area around the working should be cleaned and maintained properly.
- > The working area should be disinfected and cleaned before and after working.
- > Instruments used should be sterilised in the Autoclave.
- > The sterilised Instruments should be used.
- > Suction tip should be cleaned and changed after the use of each and every patient.
- > The cotton should also be sterilised and the waste should be discarded properly in the discarding area.

## \* Instrument Stabilisation

### → Instrument grasps -

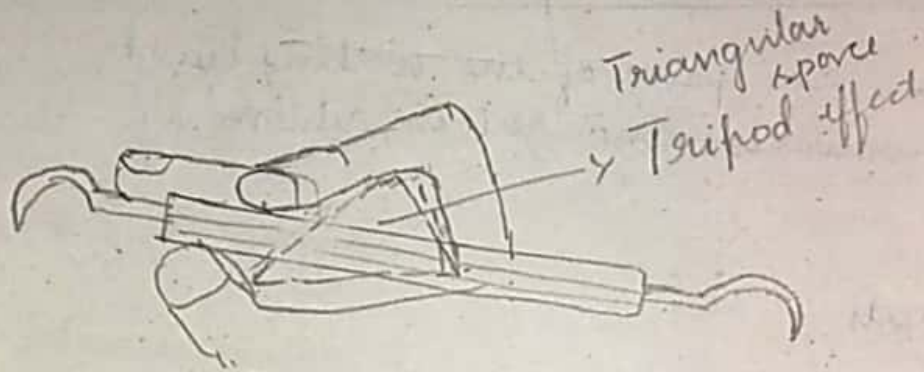
Proper grasping of Instrument is necessary for proper stabilisation of the instrument.

### \* There 3 grasps

- Standard Pen grasp
- Modified Pen grasp
- Palm & thumb grasp.

\* The most commonly used grasp for Instrument stabilisation is Modified Pen grasp.

- > The Instrument is held like a pen, where the pad of the middle finger next to the nail rests on the instrument and the index finger is bent at the second joint and placed on the same side.
- > The thumb is placed in between the index finger and middle finger on the opposite side which forms a triangular space and gives a tripod effect.
- > This tripod effect gives proper stabilisation of the instrument.

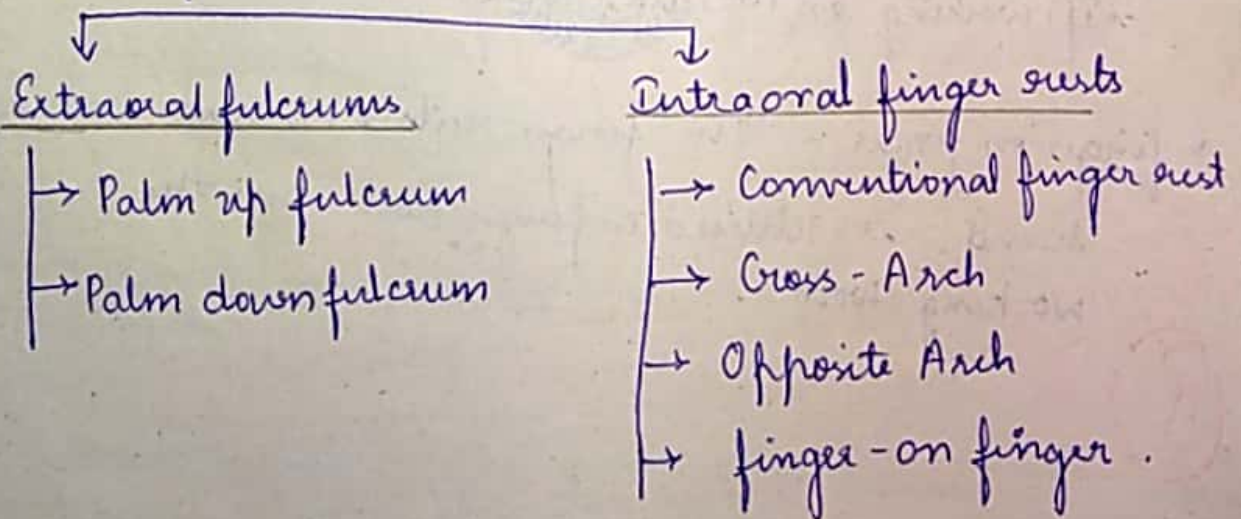


Modified Pen Grasp

\* Palm and thumb grasp

- > It is not used and recommended for periodontal procedures
- > The instrument is held in palm and the thumb resting the shank.

\* Finger rests



\* Extraoral fulcrums

- Palm up fulcrum - In this, the palm of the working hand faces up and rest is achieved on the overlying skin of the mandible.

→ Palm down fulcrum

In this, the palm of the working hand faces downwards and rest is achieved.

\* Finger rests

→ Conventional - The finger rest is adapted on the adjacent tooth of the working tooth.

→ Cross-arch - The finger rest is taken on the opposite side of the same arch.

→ Opposite arch - The finger rests on the opposite arch of the working arch.

→ If working on Maxilla, finger rest is on Mandible.

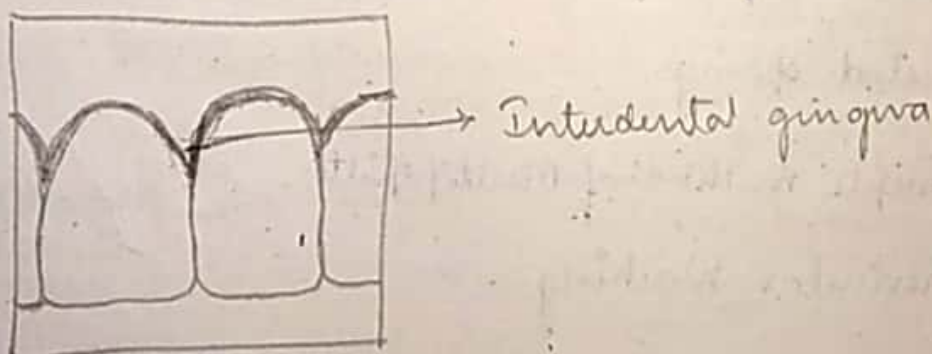
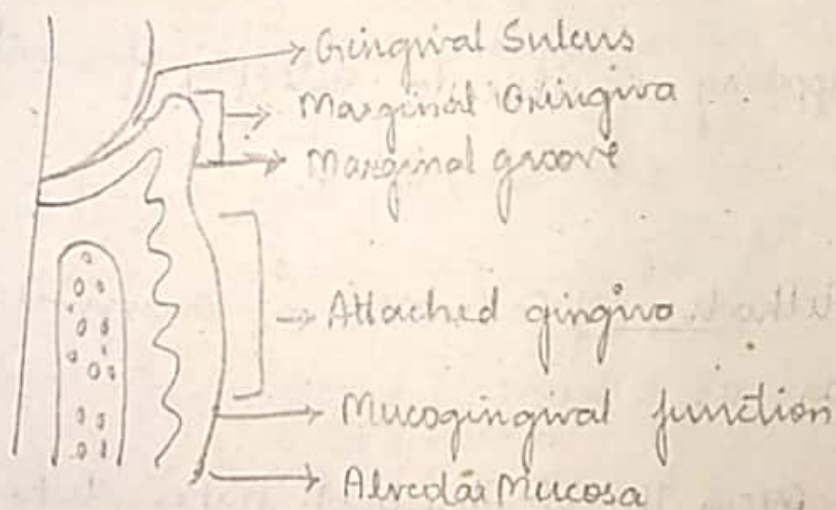
→ finger on finger - The finger rests i.e., non-working hand is utilised as finger rest on the working tooth.

(9)

## Short Essay

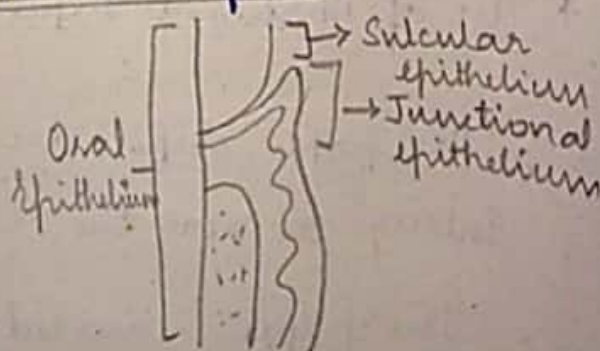
6) Parts of Gingiva are as follows

- > Marginal gingiva
- > Attached gingiva
- > Interdental gingiva



\* Types of gingival Epithelium are as follows:

- Oral Epithelium
- Sulcular Epithelium
- Junctional Epithelium

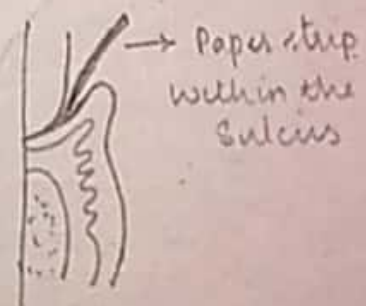


## \* Surface texture of the gingiva

- > The surface of the gingiva is usually smooth
- > Usually Stippling is seen on the Attached gingiva in a healthy gingiva.
- (A) > Orange Peel Appearance on the gingiva indicates the presence of Stippling.
- > Stippling is due to rete pegs formation.

## Q) Methods of Collection of Gingival Crevicular fluid are as follows:

- 1) ~~Paper~~ Use of Absorbent paper strips
- 2) Twisted springs
- 3) Sample method of Multipette
- 4) Crevicular Washing.



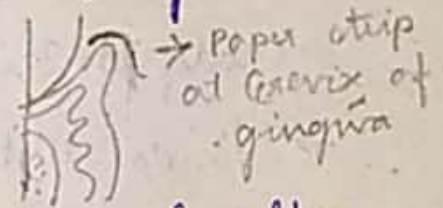
## \* Use of Absorbent Paper Strips

- > The paper strips are inserted within the gingival Sulcus or near the crevix of the gingiva.
- > The paper inserted causes some local irritation

to the ~~the~~ sulcus which promotes the release of fluid by itself. 35

### \* Twisted springs

The twisted springs are inserted near the gingival crevix and the amount of fluid collected is measured by weighing the twisted springs.



### \* Sample method of Multipipette

The gingival crevicular fluid is collected ~~by~~ by the pipette by capillary tubes.

These capillary tubes ~~are~~ collect the GCF in it.

### \* Crevicular washing

> In this method, two syringes are used in which the two syringes are placed one above the another.

> One syringe is directed towards the gingival sulcus and collects the fluid.

4

### \* Clinical Significance of GCF

> Gingival crevicular fluid is an important parameter in the clinical diagnosis.

> Contents of GCF reveals the bacterial infection caused by which organisms.



## 10.7 Enumerate types of Brushing technique.

> The types of Brushing technique are as follows:

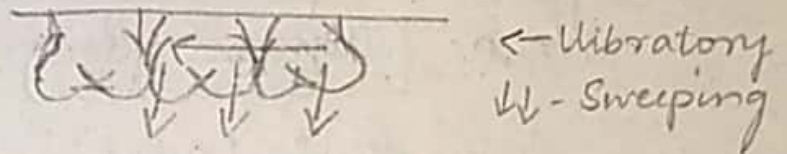
- Bass technique
- Modified Bass technique
- Stillman's technique
- Modified Stillman's technique
- Fone's Method.
- Scrub Method
- Charter's method
- Circular Method.

### \* Modified Bass technique of Brushing.

- > This technique involves vibratory and circular motion along with the sweeping motion.
- > The <sup>bristles of</sup> brush is held at  $45^\circ$  <sup>at</sup> ~~the~~ the gingival margin.
- > Then the brush is moved <sup>in</sup> backward & forth motion and then circular motion along with the sweeping down motion.
- > 3 tooth surfaces are brushed at once ~~for~~ starting from the posterior tooth of one quadrant following the

anterior tooth of the same Quadrant and then <sup>37</sup> corresponding to the other Quadrant .

- > Each motion is used, combining all 3 motions i.e., vibratory, Circular and Sweeping .
- > 20 Strokes are made along each segment .



- > On anterior lingual side, the bristles are held parallel to the long axis of the tooth and head of tuft is pressed against the tooth .
- > By following , all this steps , proper ~~to~~ cleansing of the tooth surface is done .

(4 1/2)

8) The 2 types of Calculus are as follows:

- Supragingival Calculus
- Subgingival Calculus

\* Difference b/w the Supra & Subgingival Calculus are as follows:

Supra gingival Calculus

- > The Calculus present on the tooth surface above the marginal gingiva is called Supragingival Calculus



- > It is usually yellowish-white in colour
- > It can be removed by using scalers
- > It does not contain gingival crevicular fluid

Sub gingival. Calculus

- > The Calculus present ~~on~~ below the tooth surface i.e., marginal gingiva is called Subgingival Calculus



- > It is usually brownish black in colour
- > It can be removed by using curettes
- > It contains gingival crevicular fluid

9

\* Supragingival Calculus is formed by the hydroxyapatite crystals, Saliva, plaque, microorganisms like Actinomyces.

4) Age Changes seen in Alveolar bone are as follows:-

- > As age increases, several changes in the alveolar bone takes place.
- > There is decreased fibroblasts formation.
- > There is decreased mucopolysaccharide formation.
- > There is ~~reduction~~ increased reduction of residual ridge resorption.
- > The alveolar bone surface becomes uneven and altered surface is seen.
- > There is decreased Osteoporotic Changes takes place.
- > There is increased mobility of tooth.
- > There is increased gingival recession and increased bone loss.
- > There is decreased resistance to withstand the masticatory forces and occlusal forces.
- > There is flattening of the alveolar bone seen as age changes is, as seen in older patients.

} Decreased PDL fibres

3

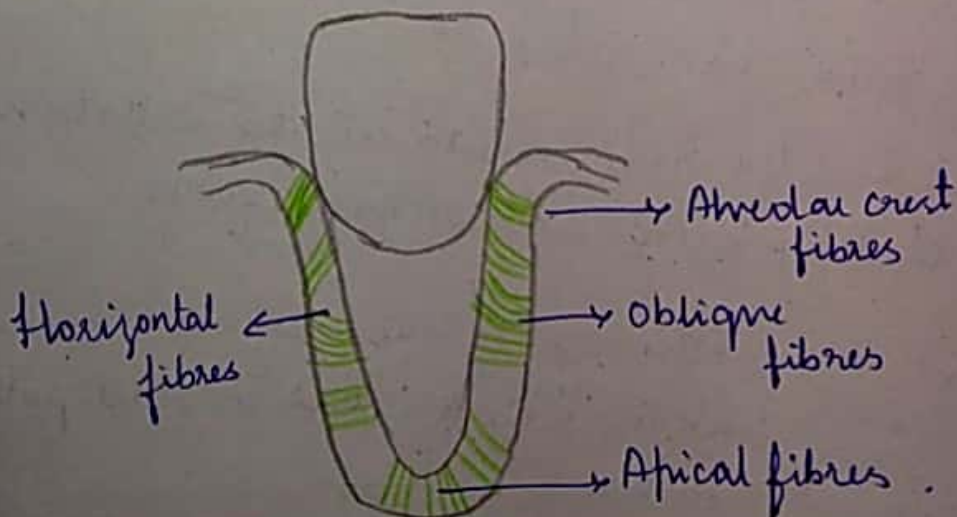
5) Functions of Periodontal ligament are as follows

- Physical function
- Nutritional and Sensory function
- Formative and remodelling function

\* Physical function

The PDL performs physical function as follows:

- Attachment of the tooth to the bone
- Soft tissue 'casing' to prevent the injury by mechanical forces
- Shock absorption
- Resistance of the forces produced
- Transfer of the occlusal forces to the Alveolar bone which provides tension in the Alveolar bone.



## \* Formative and remodelling function

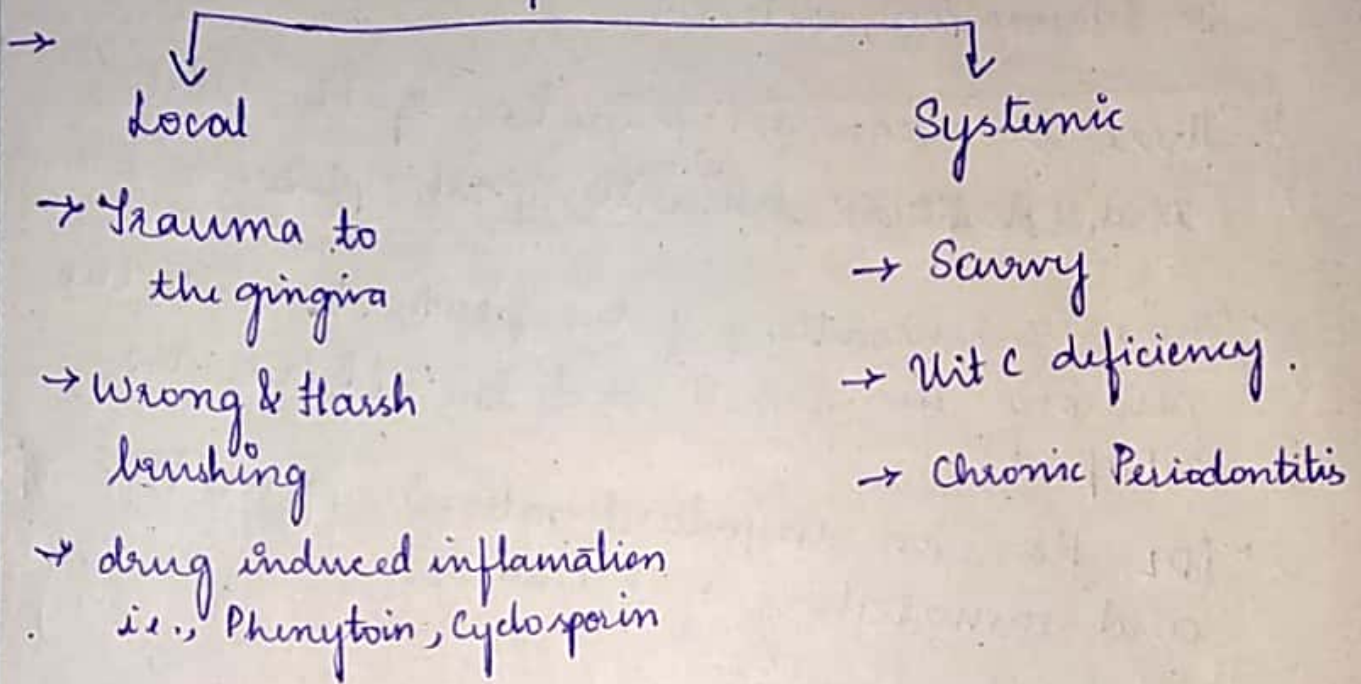
- > The PDL fibres have, <sup>to withstand the forces of</sup> parapsychical function such as Mastication, occlusion.
- > There is progressive formation of fibroblasts and ~~reception~~ remodelling takes place.
- > There is remodelling of the fibroblasts and the new ones are formed and the old ones are collapsed.
- > PDL has an important role in formative and remodelling of fibroblasts.

## \* Nutritional and Sensory function

- > The PDL fibres have rich vascular supply and enriched with the nutrients.
- > The nutrient supply to the PDL fibres is via blood vessels.
- > There is enriched nutritional supply.
- > PDL fibres provide sensory function such as tactile, pain, sensation is produced, which is produced through the myelin sheath.
- > A single myelin sheath produces 4 different sensory responses.

4 1/2

#### 4) Local & Systemic causes of Gingival bleeding



#### \* Clinical Significance of Bleeding on probing

- > Generally, Bleeding on probing is seen in Chronic gingivitis, Chronic Periodontitis.
- > Bleeding on probing occurs normally for 3-4 seconds but when there is any associated disease or infection of the gingiva and periodontium, there is excessive bleeding on probing.

2/2

3) Effects of Smoking on gingival & Periodontal diseases are as follows:

- > Increased Inflammation of gingiva
- > Increased pocket depth
- There is increased bone loss.
- There is increased gingival recession.
- Increased deposition of exudate or pus in the gingival tissue.
- loss of stippling
- Periodontal pocket formation
- loss of Attachment.

\* Effects of Non-Surgical & Surgical ~~procedures~~ periodontal treatment.

- > No improvement of the gingival status and Periodontal status is seen.
- > There is no reduction in the inflammation
- > Prognosis of treatment is reduced
- > Continuous loss of residual bone is seen.

3



## Short Answers

11) 4 Conditions Causing desquamative gingivitis

→ Scleroderma

→ Lupus erythematosus

→ Pemphigus

→ Erythema Multiforme.



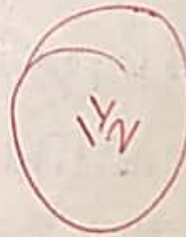
14) 4 different finger rests are as follows:

→ Conventional finger rest

→ Cross arch finger rest

→ Opposite <sup>Arch</sup> finger rest

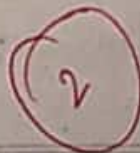
→ Finger on finger rest



\* Opposite Arch finger rest is used to do hand scaling in upper right posterior Palatal regions.

15) Sickle Scalers are used for Scaling of supra-gingival calculus.

> Gracey's Curette is used for root-planing in a pocket > 6mm depth.

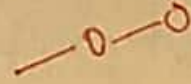


## 12) Stages of Gingival inflammation

Stage 0 - Marginal Gingivitis

Stage 1 - Chronic Gingivitis

Stage 2 - Chronic Periodontitis



## \* Chronic Gingivitis - Diagnosis

13) Clinical Significance of Non-Specific  
Plaque hypothesis is that we still use this  
non-specific Plaque hypothesis theory therapeutically.

though it is not accepted,

> There is plaque accumulation takes place in  
any age. (2)

## Long Essay.

40

27

Acute Gingival Infections are as follows:

- Acute necrotising Ulcerative Gingivitis
- Herpetic Fibromatosis Gingivae
- Pericoronitis

### \* Acute necrotising Ulcerative Gingivitis

- > It is an acute gingival inflammation caused by the fusiform bacteria, spirochetes.
- > It is also called as Vincent's Angina, Oral Thrush.

### \* Fibromatosis Gingivae

- > It is an herpetic fibromatosis gingivae caused by the HSV-1.
- > There is fibrosis of gingiva that takes place.

### \* Pericoronitis

- > It is the Acute infection caused at the operculum region.
- > Food Accumulation and debris formation leads to the infection.

# \* Pericoronitis

It is an acute infection caused in the region of Opuculum.

## \* Etiology

> It is due to debris accumulation or food accumulation beneath the Opuculum.

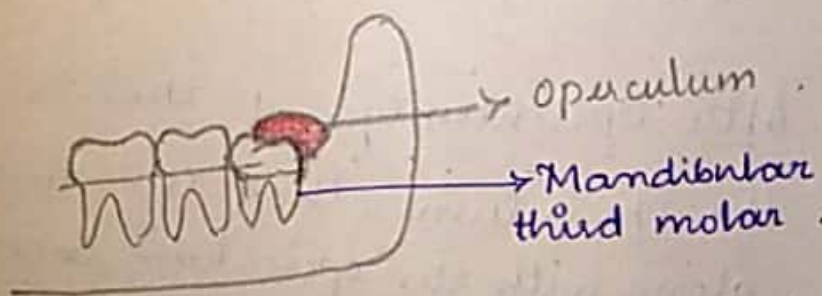
## \* Clinical features

Age - It is commonly seen in the adults

Sex - It can affect both male and females.

> It commonly occurs in the mandibular third molar region where the molar is partially erupted.

> The flap covering the tooth is called Opuculum.



> \* As there is food accumulation or nut trapped within the Opuculum, there is infection in that region.

> The Opuculum is enlarged by the fluid or exudate formed in the flap.

> Patient has severe pain in the jaw and swelling is present.

> Pain can be present in the tonsillar region, ear region.

> There is trismus commonly seen.

> There is difficulty in chewing, mastication and speech.

> The major complication of Pericoronitis is the spread of infection to the tonsillar region, and other regions.

> There is Occlusal trauma commonly seen.

### \* Management

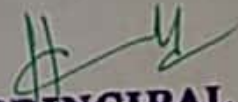
> The flap overlying the tooth is surgically excised i.e., Operculotomy is done.

> After Operculotomy, if there is again growth of the operculum, then the tooth is extracted along with the operculum is excised.

> Antibiotics such as Amox 500mg, ~~Clasax~~ thrice daily is given for 10 days.

> Analgesics such as NSAID's and paracetamol are prescribed.

> Patient is again recalled after 9 months  
for check-up.



**PRINCIPAL**  
Dayananda Sagar College of Dental Sciences  
Kumarnawamy Layout,  
Bangalore - 560 078.

(7)



# Dayananda Sagar College of Dental Sciences & Hospital

8766 Kumaraswamy Layout, BENGALURU-560 078

FIRST / SECOND / THIRD INTERNAL ASSESSMENT EXAMINATION

Name : Manu. K Reg. No. : 17D1627

Class : IN BDS Subject : Orthodontics Date : 16-2-22

## SECTION

① Growth

Toddler defines growth as increase in size.

development

It is defined as progression towards maturity.

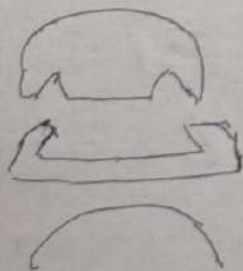
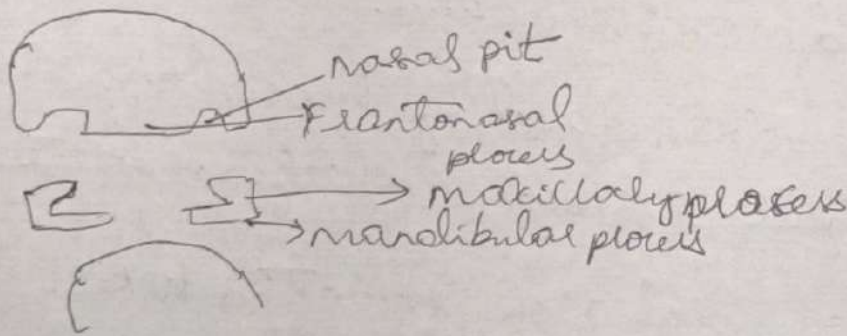
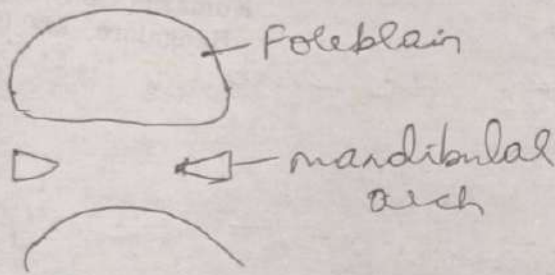
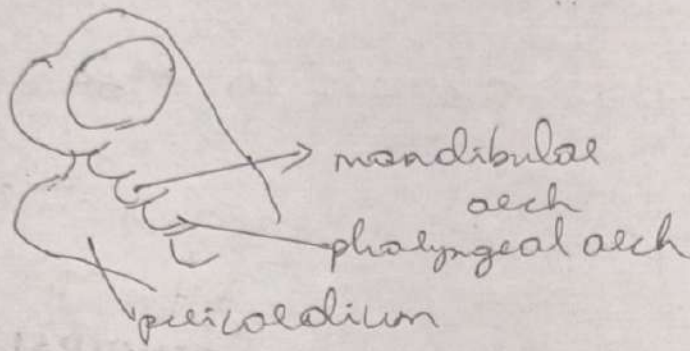
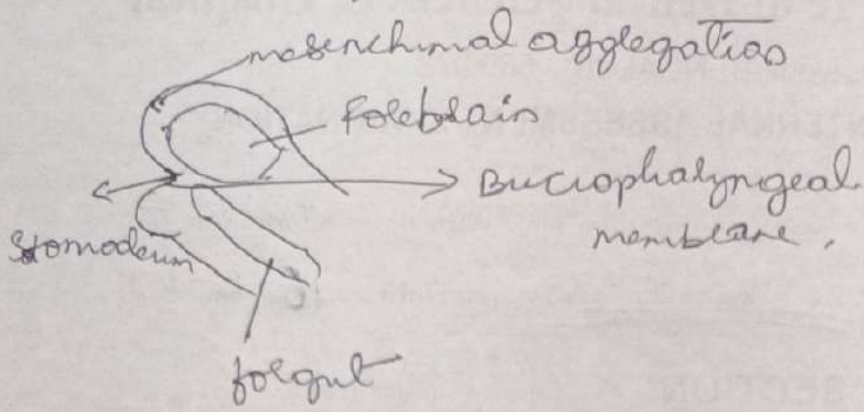
46/12  
70

Perinatal growth of mandible.

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Kumaraswamy Layout,  
Bangalore - 560 078.

- > In 4 week of intestine the embryo bulges ventrally to form forebrain.
- > Below the Bulge depression is present. The depression is called as Stomodeum.
- > The Stomodeum lined by buccopharyngeal ~~at~~ ~~aperture~~ oropharyngeal membrane which separates the foregut.
- > Then pharyngeal arch formation takes. The pharyngeal arches give rise to neural components, skeletal components, connective tissue components, etc.
- > The 1<sup>st</sup> pharyngeal arch is called mandibular arch and second is maxillary arch.
- > The mandibular arch gives, ventrolateral maxillary process. The mandibular arch is called as mandibular process.

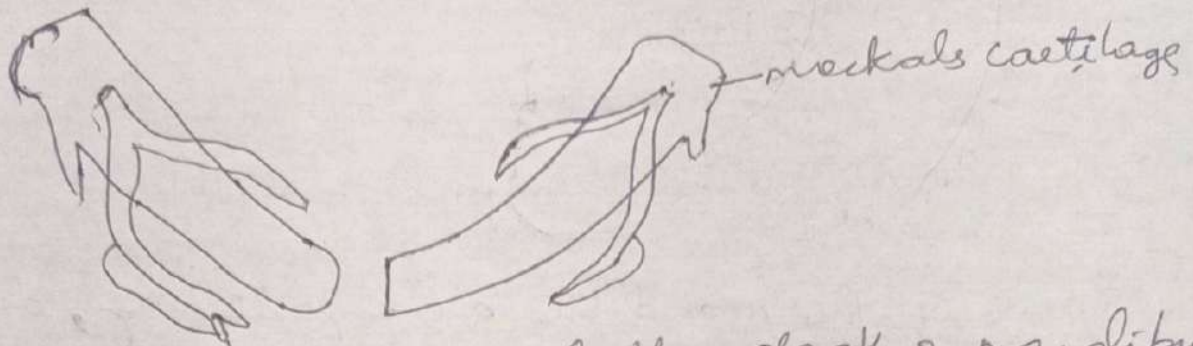
> mesoderm of forebrain gives frontonasal process,





> Fusion of Two mandibular processes from lower lip and lower jaw.

Meckel's cartilage.



> Meckel's cartilage guide the growth of mandible.

> The growth starts between the division of hertles.

> The meckel's cartilage also forms

> malleus & Incus

> spine of Spheroid

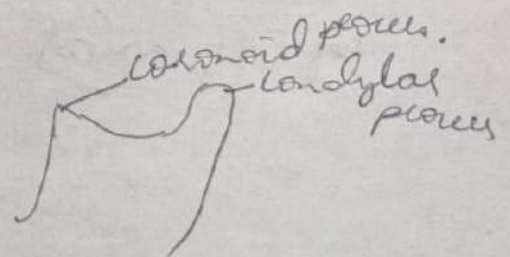
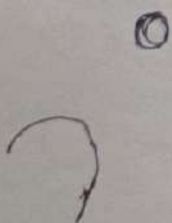
> ~~plate~~ pterygo-spheroid ligament.

> ligament of mental.

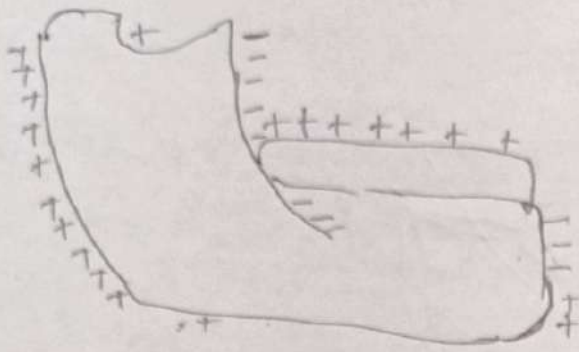
Condylar  
~~condoid~~ process.

> It develops from mesenchymal condensation than fuses with body of mandible.

> The condoid process arises from cartilage of condylar process.



Postnatal growth of mandible - growth takes by troubles deposition & resorption  
 > laminae of the mandible.



\* laminae of the mandible grows posteriorly, deposition takes place at posterior border and resorption on anterior border.

Reasons for posterior growth

- > TO accommodate the muscle of mastication
- > TO give space of tooth

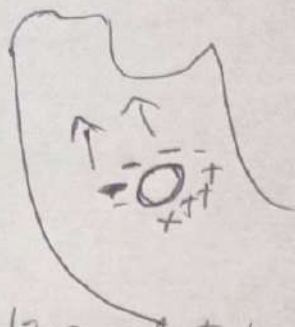
\* posterior growth of the <sup>laminae of</sup> mandible, mandible moves forward and downward.

### Body of the mandible

\* deposition takes place posteriorly and in anterior region resorption on upper region, deposition on lower region

\* vertical length increases due to deposition of alveolar process will takes place.

> Lingual tuberosity



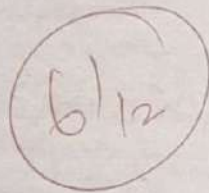
\* usually lingual tuberosity present between the body of mandible & ramus of mandible.

> chin of mandible



\* usually chin is not prominent in child, it will become prominent.

> Condylar process



\* growth of the condylar process grows posteriorly

> Coronoid process

\* it follows V-principle of growth pattern.

② Diagnostic aids in orthodontics  
classified as

- ① essential diagnostic aids
- ② supplemental diagnostic aids

① essential diagnostic aids

1. Case history
2. Case examination
3. Study model
4. Simple radiograph
  - ① periapical radiograph
  - ② Bitewing radiograph
  - ③ panoramic radiograph
5. facial photograph
  - ① intraoral
  - ② extraoral

② supplemental diagnostic aids

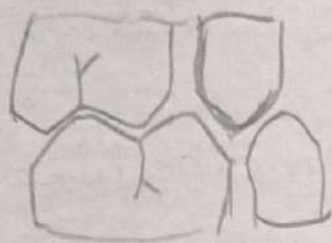
- > Cone Beam Computed Tomography (CBCT)
- > occlusal radiograph
- > CT

Study models

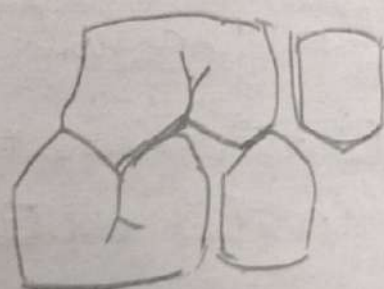
- > It help in treatment plan.
- > we can see the teeth from lingually, which is difficult in patient mouth.

### ③. Angle's classification of malocclusions

① class I:- In class I Angle's classification of malocclusion, maxillary <sup>buccal</sup> cusp ~~occludes~~ ~~with~~ ~~normal~~ permanent first molar occludes with buccal groove of mandibular first molar.



② class II - In class II Angle's classification of malocclusion, maxillary <sup>permanent</sup> first molar disto-buccal cusp occludes with buccal groove of mandibular permanent first molar.



In class II Two types are there

① Division I

② Division II

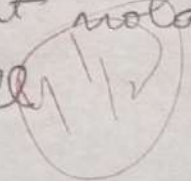
Ⓐ division I - class II malocclusion with proclined anterior incisors,

Ⓑ division II - class II malocclusion with retroclined central incisors.

subdivision class II - It means one side class II malocclusion and on the other side class I malocclusion relation

Ⓒ class III = In class III malocclusion the maxillary first permanent molar mesiobuccal cusp occludes in the interdental space present b/w mandibular permanent first and second molar.

### Drawbacks of Angle's classification

- ① Angle's considered only antero-posterior plane not considered other Transverse & Vertical plane.
- ② Angle's considered First permanent molar as a fixed point in the skull 
- ③ In the case of extracted first molar - Angle's classification ~~can~~ cannot be used.
- ④ In primary dentition Angle's classification cannot be used.
- ⑤ He does not considered crowding, rotation spacing

## ④ tongue thrust habit

> habit is a constant @ fixed practice by frequent repetition

### etiology

- > persistent infantile swallowing
- > Genetic
- > maturational
- >

### Classification

- ① No-deformed thrusting
- ② Anterior-deformed thrusting
  - > anterior open bite
  - > posterior cross bite
- ③ Lateral-deformed thrusting
  - > posterior cross bite
  - > posterior open bite

④ Both Anterior-lateral deformed thrusting

### Clinical features of tongue thrust habit

- open bite
- over bite is reduced.
- over jet increased.
- rotated teeth
- posterior cross bite
- loss of minor ~~tooth~~ distal & labiolingual angulation
- proclination of the canines

④

## management

- > Tongue crib is given to the patient. break the habit of the patient
- > Tongue spike can be given
- > Removable and fixed appliances are given
- > Vertical crib can be given

## ⑤ pressure tension theory

It is theory of ~~the~~ tooth movement. In which the movement of tooth occurs due to pressure and tension,

- > The pressure created in the direction of tooth causes the compression of periodontal membrane, due to pressure. Increases the vascularity,
- > due to increase in vascularity, fibroblast and osteoclast move towards the compressed periodontal membrane
- > osteoclast occupy the lamellae. it causes the resorption of alveolar plate, <sup>Diagram 70</sup>
- > The bony trabeculae will be perpendicular to the tooth movement, after applying pressure the bony trabeculae will be parallel to the direction of force,

→



> In the opposite direction of tooth movement create tension in the periodontal membrane, which causes the stretching of PDL fibres,

> In tension area also vascularity increases and migration of osteoblast and fibroblast takes place

> osteoblast deposit the osteoid, it leads deposition of bone.

(4)

⑥ Andrew's six key of occlusion

① class I molar relation

② correct mesio-distal angulation

③ correct labio-lingual inclination

④ absence of crowding

⑤ Tight contact

⑥ Flat curve of spee

① class I molar relation.

> In this maxillary permanent first molar mesiobuccal cusp occludes with buccal groove of the mandibular first permanent molar.

mesiolingual cusp occludes with central fossa of mandibular first molar.

② correct mesio-distal angulation.

> There is no mesially @ distally tipping of tooth

③ correct labio-lingual inclination

> There is no increase in inclination it should be is 2mm overjet & 2mm overbite

④ absence crowding

> due to discrepancy between arch length and tooth material causes crowding.

⑤ Tight contact

> Tight contact should be there, there no space should be present.

⑥ curve of spee

~~or horizontal plane~~

> In antero-posterior occlusal plane, drawn from the molar passes through buccal cusp of cuspids.



ragan? 6

# Dayananda Sagar College of Dental Sciences & Hospital

8922 Kumaraswamy Layout, BENGALURU-560 078

## FIRST / SECOND / THIRD INTERNAL ASSESSMENT EXAMINATION

Name : Manu K Reg. No. : 1701627

Class : IV BDS Subject : ortho Date : 16-2-21

### SECTION

⑦ Bolton's analysis,

Bolton's analysis help to see the discrepancy between mandibular and maxillary arch.

> Sum of maxilla 12.

\* sum of the mesiodistal width of 12 teeth of maxilla

> Sum of mandible 12

\* sum of the mesiodistal width of 12 teeth of mandible

> sum of maxilla 6

\* sum of the mesiodistal width of maxillary anterior teeth

> sum of mandible 6

\* sum of the mesiodistal width of the mandible anterior teeth.

④

$$\text{overall ratio} = \frac{\text{sum of mandibular } 12 \times 100}{\text{sum of maxillary } 12}$$

sum of maxillary 12.

$$\text{maxillary ratio} = \frac{\text{sum of mandibular } 12 \times 100}{99.6}$$

$$\text{mandibular ratio} = \frac{\text{sum of maxillary } 12 \times 99.6}{100}$$

For anterior ratio

$$\text{overall ratio} = \frac{\text{sum of mandibular } 6 \times 100}{\text{sum of mandibular } 6}$$

$$\text{maxillary anterior ratio} = \frac{\text{sum of mandibular } 6 \times 74.2}{\text{sum of mandibular } 6}$$

$$\text{mandibular anterior ratio} = \frac{\text{sum of maxillary } 6 \times 100}{74.2}$$

⑧ Trajectories of force.

The thickness of bony trabeculae increase in stress area.

> Beignias conducted a experiment in which the pins are placed on to the skull, after delensing of the skull the stress line will appear to ~~for~~ see the natural stress line

In maxilla

- ① Fronto-nasal buttress
- ② mala - zygomatic buttress
- ③ pterygoid buttress.

① Fronto-nasal buttress

In Fronto-nasal buttress begins from lateral incisor, lateral incisor and canine, passes the premaxillary apparatus and nasal fossa. reaches to frontal bone.

② mala - zygomatic buttress.

It begins from the lower orbital ridges. reaches to zygomatic bar, <sup>then</sup> reaches to skull base.

③ pterygoid buttress

It begins from lateral wall of orbit reaches to base of skull.

3/12

In mandible.

Horizontal buttress starts from coronoid process reaches to other side

> lower border of mandible, genial tubercle, mental protuberance

> Vertical buttress ~~to~~ starts from ~~at~~ molar roots reaches to inferior border of mandible

In maxilla

- ① Fronto-nasal buttress
- ② malae - zygomatic buttress
- ③ pterygoid buttress.

① Fronto-nasal buttress

In Fronto-nasal buttress begins from lateral incisor, lateral incisor and canine, passes the premaxillary apparatus and nasal fossa. reaches to frontal bone.

② mala - zygomatic buttress.

It begins from the lower orbital ridges. reaches to zygomatic base, <sup>then</sup> reaches to skull base.

③ pterygoid buttress

It begins from lateral wall of orbite reaches to base of skull.

3/12

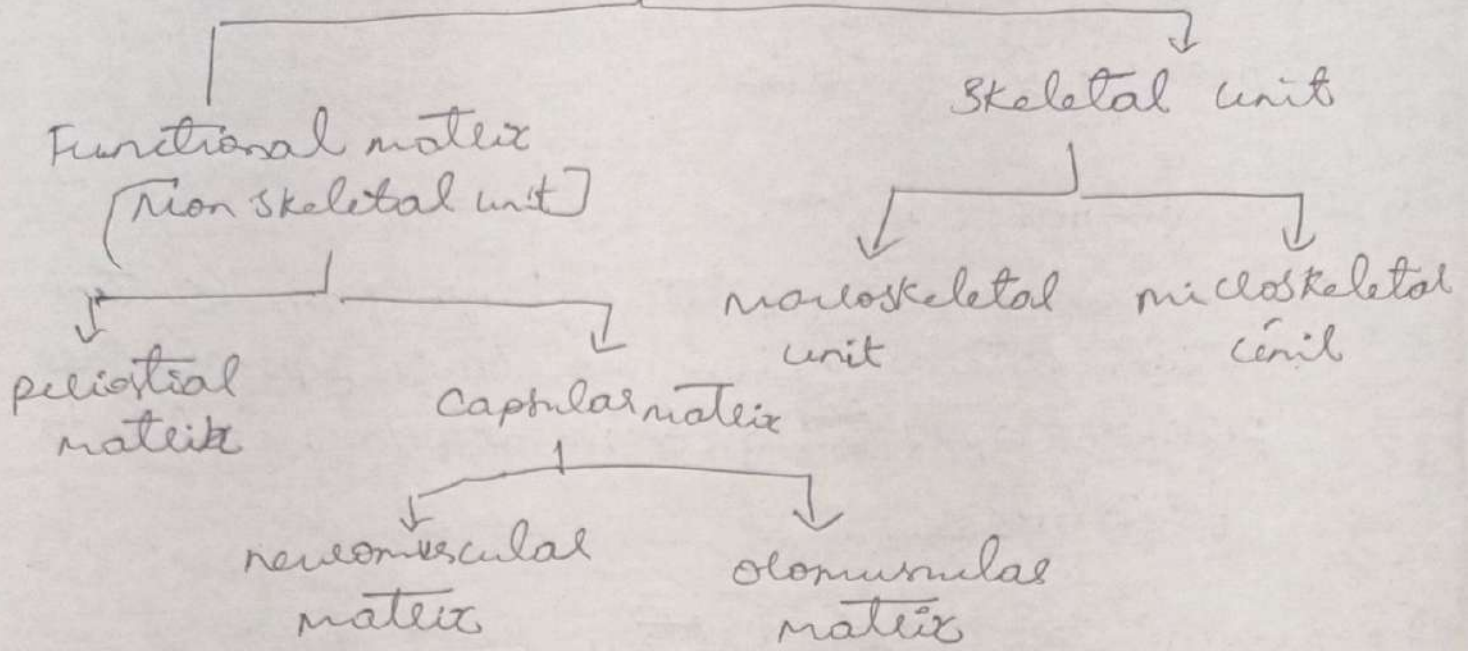
In mandible.

→ Horizontal buttress starts from coronoid process reaches to other side

> lower border of mandible, genial tubercle, mental protuberance

> Vertical buttress ~~to~~ starts from ~~and~~ molar roots reaches to inferior border of mandible

⑩ Functional matrix Hypothesis.  
Cranio facial components



+ It is theory of growth.

\* In Functional matrix we also include genetic theory and sutural theory

\* skeletal unit: The skeletal <sup>cranio facial component</sup> performs same functions are called skeletal unit.

\* maxilla & mandible are microskeletal unit  
it is made up of several bones, <sup>example</sup> ~~bone~~ mandible & made up of body of mandible, mental bone, ramus condyle & coronoid process.

\* cranial vault is macroskeletal which perform same functions adjacent to the microskeletal unit.

\* periosteal matrix - directly & actively related to the skeletal unit.

\* Capsular matrix - st & indirectly and partially related to the skeletal unit

\* neurovascular capsular matrix to envelope the brain, Example, dura mater, skin

\* olomucular capsular matrix like skin mucosa

\* capsular matrix envelop the functional matrix and skeletal unit.

(3/2)

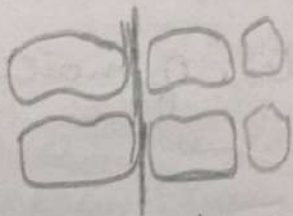
(11) Jackson's triad

- > structural balance
- > esthetic harmony
- > Functional efficiency

(2)

(12) Flush terminal plane

The Flush terminal plane is ~~the~~ seen in primary dentition, maxillary and mandibular second molars are in same plane



Flush terminal plane

(2)

PRINCIPAL

Department of Dental Surgery  
Government Dental Hospital  
Mumbai - 400 032



(13) Tweed's triangle

In Tweed analysis of cephalometrics

(10)

(14) Facial profile.

(1) Slight

(2) Concave - class II division I

(3) Convex. - class II

Facial divergence -

(a) anterior divergence

(b) posterior divergence

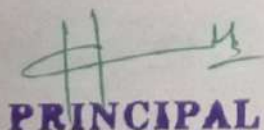
(17)

(15) Incisor classification.

Class I - mandibular incisor present exactly below the <sup>plateau</sup> ~~circumference~~ of maxillary incisor

Class II - mandibular incisor present ~~below~~ behind the ~~circumference~~ plateau of maxillary incisors

Class III - mandibular incisor present labially to the maxillary incisors

  
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Dayananda Sagar College of Dental Sciences  
Kumaraswamy Layout,  
Bangalore - 560 078