MAHE INSTITUTE OF DENTAL SCIENCES & HOSPITAL
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U.T. of Puducherry. Ph : 0490 2337765

2.5.4: The Institution provides opportunities to students for midcourse improvement of performance through specific interventions Opportunities provided to students for midcourse improvement of performance through:

1. **Timely administration of CIE**
2. **On time assessment and feedback**
3. **Makeup assignments/tests**
4. **Remedial teaching/support**

INDEX

Dr Anil Melath
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Dr.ANIL MELATH, MDS,

PRINCIPAL

TO WHOMSOEVER IT MAY CONCERN

This is to certify that our Institution provides opportunities to students for midcourse improvement of performance through specific interventions. Opportunities provided to students for midcourse improvement details are given:

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CHALAKKARA
MAHE

Dr. Anil Melath, MDS
Principal
Mahe Institute of Dental Sciences & Hospital
Chalakkara, P.O.Palloor, Mahe -673310
UT of Puducherry

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DETAILS ON MIDCOURSE IMPROVEMENT

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Ref. No: MINDS.P.O/110125/04 **Date: 11.01.2025**

CIRCULAR

This is to inform that, students who are willing to improve their internal marks can attend the Midcourse improvement examinations as per the following timetable.

Date	Day	Final BDS	Third BDS	Second BDS	First BDS
20.01.2025	Monday	Public Health Dentistry			Anatomy
21.01.2025	Tuesday	Periodontics			Physiology
22.01.2025	Wednesday	Orthodontics			DAOH
23.01.2025	Thursday	Oral Medicine and Radiology			Biochemistry
24.01.2025	Wednesday	Oral Surgery	Oral Pathology	General Pathology	
25.01.2024	Thursday	Conservative Dentistry	General Medicine	Microbiology	
27.01.2025	Friday	Prosthodontics	General Surgery	Pharmacology	
28.01.2025		Paedodontics		Dental Materials	
Examination Hall:-UG Library					
Time:- 8.00 AM to 11.00AM					

All the Head of Department are requested to forward the name of students who are interested for appearing midcourse improvement exam to be held on 20th January 2025 onwards on or before **15th Jan, 2025.**

Kindly forward the question paper on or before 16th January 2025 to the

Email: **examwingminds@mahedentalcollege.org.**

Copy to:

1. Chairman
2. Admin Manager
3. All Dept's
4. Nest MINDS
5. IQAC

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DR ANIL.M

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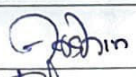
MIDCOURSE IMPROVEMENT EXAM

DEPT OF ORAL MEDICINE & RADIOLOGY

FOURTH YEAR IRREGULAR BATCH

STUDENT LIST

SL NO:	NAME OF THE STUDENT	SIGNATURE
1	ARSHIN	
2	PRIYA DHARSHINI	

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MIDCOURSE IMPROVEMENT EXAM

DEPT OF ORAL MEDICINE & RADIOLOGY

FOURTH YEAR IRREGULAR BATCH

OUTCOME MARKLIST

SL NO:	NAME	SECOND INTERNAL MARK	MIDCOURSE IMPROVEMENT MARK	REMARKS
1	ARSHIN	24	47.5	IMPROVED
2	PRIYA DHARSHINI	25	42	IMPROVED

Head of The Department
Dept. of Oral Medicine & Radiology
Mahe Institute of Dental Sciences & Hospital
Chalakkara, Mahe

SIGNATURE

MAHE INSTITUTE OF DENTAL SCIENCES & HOSPITAL

CHALAKKARA, MAHE

U. T. Of PUDUCHERRY - PIN 673 333

INTERNAL ASSESSMENT BOOK

SUBJECT: Oral medicine and Radiology

Tick Questions Attempted :

Q_1 ☑ Q_2 ☑ Q_3 ☑ Q_4 ☑ Q_5 ☑ Q_6 ☑ Q_7 ☐ Q_8 ☑

Q_1	5	10	Q_5	4	5
Q_2	6	10	Q_6	4	5
Q_3	2	5	Q_7	NA	5
Q_4	3	5	Q_8	3 1/2	5
				27 1/2	45

+20 = 47 1/2

No. of Additional Sheets used.

TOTAL

Total in Words

Evaluated by:

Name of the candidate : Arshin . N

Reg. No : 20DS021A

Signature

Date : 23/01/2025

Signature of Invigilator

Section - A.

Long Essay:

2.) **Panaromic radiography.**

* Introduced by Numata.
* Panaromic radiography is defined as the single tomographic image of both maxillary and mandibular arch in a single film.

Indication:

* Full mouth radiograph.
* For orthodontic treatment.
* Treatment planning befor surgical procedure.
* In Periodontitis conditions.
* Presence of cyst/tumour.
* Patent'S with restricted mouth opening.

Advantages:

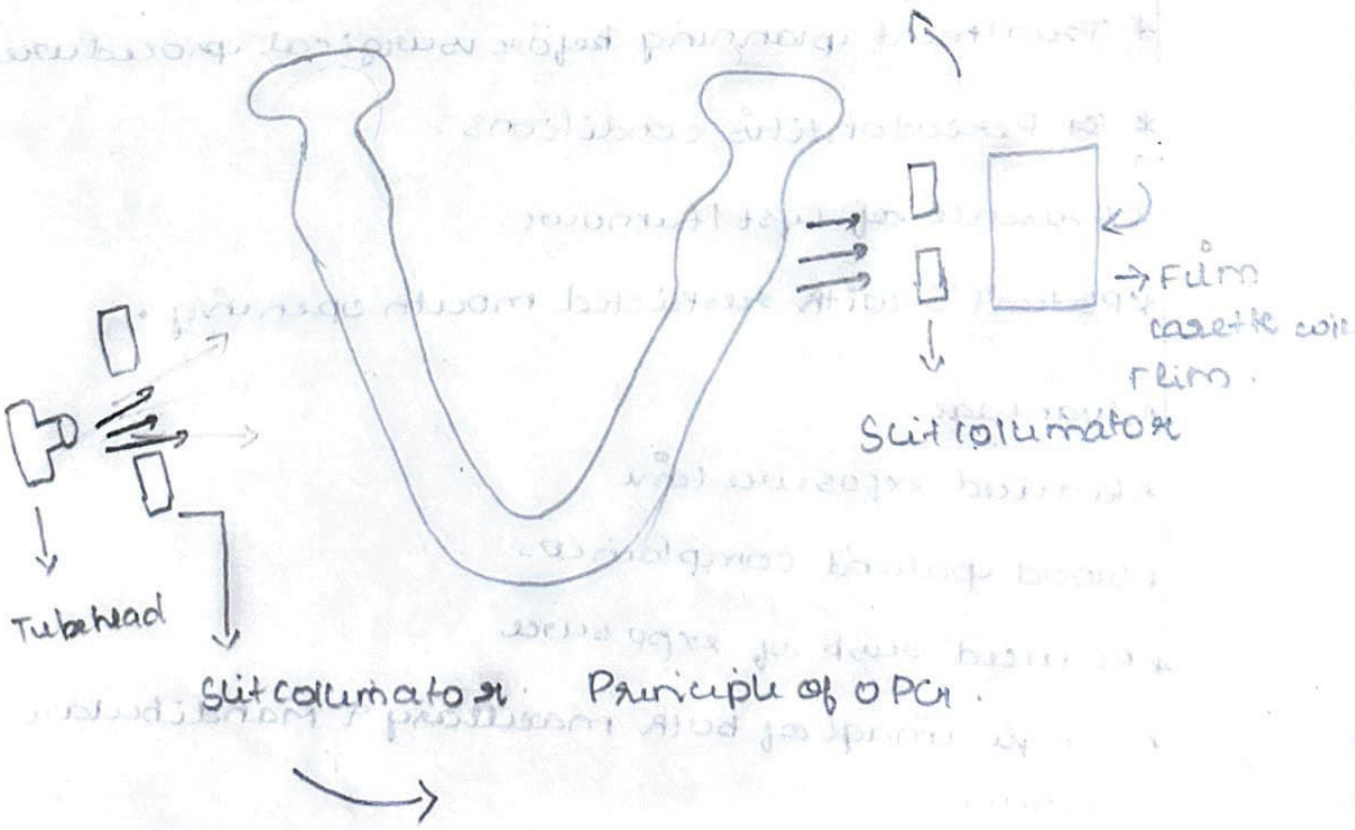
* Reduced exposure time
* Good patent compliances
* Reduced risk of exposure
* Single image of both maxillary & Mandibular arches.

Disadvantages:

* High chance of distortion
* Radiographic artifacts are seen.

Principle of panoramic radiography.

* The tubehead and the film holder with film move in a direction opposite to each other with a common central axis.
* The film inside the cassette will also rotate in the direction of the film holder.

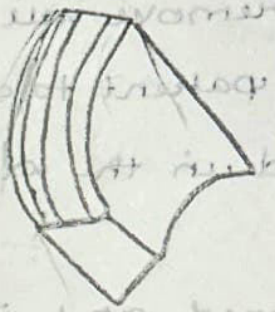


Principle of OPG.

Focal trough:

* It is a three dimension curved object when placed in front of the patient / between the patient & film

* It is a three dimensional curvature of object where the structures within it are clear and outside the trough is reduced, magnified or distorted.



Focal trough

Parts of the machine:

- OPG unit
  * Tube head
  * Filters
  * collimators
  * Film cassette with film
- Supporting unit
  * chin rest
  * cervical strap.
  * lead apron.

Exposure parameters:

KVP => 80 kvp

mA => 15 mA

Sec => 15 seconds.

Procedure:

* Inform the patient regarding the procedures.
* Ask the patient remove all the objects from the face and ask the patient to wear thyroid collar.
* Film is loaded in the dark room into the film carrette.
* Bite block is opened and it is covered.
* Ask the patient is to bite it straight
* Place the bite block inside the patient's mouth and ask the patient to bite.
* Expose the film.

Ghost image:

* Radiographic artifacts seen when the X Rays penetrate the high dentisty objects.

characteristic

* Similar to normal object.
* High density.

* usually present above the normal height of the object.

* Sometimes seen bilaterally.

i) Anatomic artifacts.

- Hyoid bone
- cervical spine
- Lower border of mandible.

ii) others

- thyroid collar
- Nose pin
- cervical skap.

1.) Classification of Non-neoplastic salivary gland disorders.

* Developmental / Functional:
  - Akesia
  - Hypoplasia
  - Hyperplasia.

* Functional disorders.
  * Xerostomia.
  * Ptyalism

* Autoimmune disorders.
  * Sjogren's syndrome.
  * Mikulicz disease.

* Obstructive disorders:
  * Sialolithiasis
  * Mucocele
  * Ranula.

* Infections
  * Bacterial
    - Tuberculosis, Syphilis

* Viral.
  - Measels
  - Mumps
  - Rubella.
  - Coxsackievirus.

* Neoplastic
  i) Benign
    * Pleomorphic adenoma.
    * Warthin's tumour.
  ii) Malignant.
    * Mucoepidermoid carcinoma.
    * Acinic cell carcinoma.

Ranula:

* Ranula occurs due to the retention of the salivary gland secretions within the gland due to the obstruction of the salivary duct.

* causes:
  - Obstruction of salivary gland duct
  - Occlusion of the salivary gland duct.

* commonly seen in the floor of the mouth.
* clinically, it resembles the frog's belly hence the name ranula.
* It is asymptomatic.
* common in male and female.
* Plunging ranula => Seen extending from floor of the mouth and below the mylohyoid muscle.
* Treatment => surgical excision.

Sialography:

* It is radiographic method in which a radioactive contrast media is injected into the salivary gland and exposed to x-Rays to study the pathologies in the gland.

* contrast media (2 types)

i) Oil-based contrast media.

ii) water soluable contrast media.

* Methods:

- Direct method => Injecting the dye directly into gland via the duct.
- Indirect method.
* Gravity method.

Procedure:

* Prepare the ductal Orifice.
* Inject the needle into the duct passively and deposit the contrast media into the gland/duct and remove the Injection.
* Expose the X-Rays.

Interpretation:

* Normal salivary gland - branchers tree appearance
* Sialolithiasis - sausage appearance.
* Sjogren's syndrome - cherry blossom appearance/ fruit ladden tree appearance.

- Mucocutaneous Pemphigoid.

*Recurrent ulcerative lesion.

* Recurrent apthous stomatitis.

- Bechet's syndrome.

* Single ulcerative lesion

- Apthous ulcer.

- Traumatic ulcer.

Short answers:

3.) Leukoplakia

It is defined as a condition which is cannot be clinically and pathologically characterized as other variant and is not associated with other pathologic agents except the use of tobacco / Alcohol.

Etiology:

* Tobacco

* Alcohol.

Predisposing Factors:

* Genetic predisposition

* Familial

*chronic trauma.

Clinical Features:

* common in age greater than 50 years.
* Male > Female
* Site: Vestibule, buccal mucosa, palate, Labial mucosa, Tongue & Floor of mouth.
* They are non-scrapable lesion.
* Clinical types.

Leukoplakia.

- Homogenous
- Non-Homogenous
  - Erosive
  - Nodular
  - Verrucous.

*Homogenous - Appear as whitish papule or papule
↓
It is regular and uniform
↓
Appear translucent.

*Heterogenous - Irregular whitish patches on the surface.

* Nodular, whitish white is seen emerging from the surface - Nodular/ Speckled Lichen planus.

* whitish plaque is also seen above which reddish appearance occurs due to the erosion.

Differential Diagnosis:

* Lichen planus.
* Leukoedema
* Oral submucous Fibrosis
* Candidiasis.

Treatment:

Leukoplakia

- Mild
- severe.

* Topical antifungal agents
  - ketoconazole
* Topical antibiotic
* Topical analgesic
* Topical anasthesia

↓

If not cured

↓

Systemic corticosteroids

Inhalational steroids

↓

Biopsy

Dysplastic Feature seen

Dysplastic Features not seen

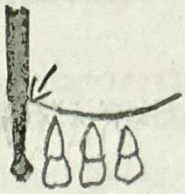
* Radical excision
* Anti-fungal agent
* Immunosuppressants

5) Normal Radiographic landmarks of Maxilla.

Radio-opaque areas	Radiolucent areas
* Anterior nasal spine * Hamular notch * Maxillary tuberosity * Floor of nasal cavity * Floor of maxillary sinus * Nasal septum. * Inverted "Y" area * Zygomatic Process * Zygoma * Inferior concha.	* Incisive fossa * Nasal cavity * Incisive canal * Mid Palatine Suture.

*Anterior nasal spine

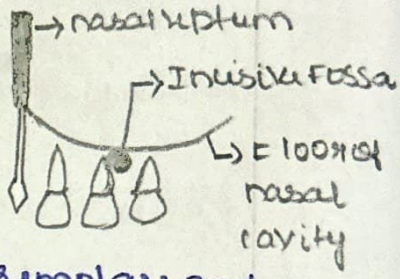
- Radiopaque area at Junction of Nasal septum and Floor of nasal cavity.



*Floor of nasal cavity

- Radiopaque area above the roots of anterior tooth

*Nasal septum - Radiopaque area in the middle of the nasal cavity.

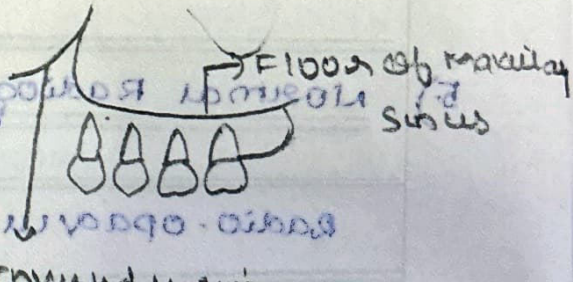


*Floor of maxillary sinus

- Radiopaque area above the roots of Premolars and molars.

*Incisive Fossa

- Radiolucent area near the root of lateral incisors.

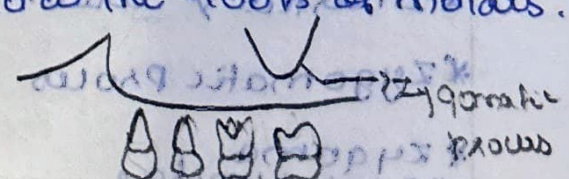


*Inverted "y" sign

- Radiopaque "Inverted y" area in canine region connecting floor of maxillary sinus to the nasal cavity.

*Zygomatic Process

Radio-opaque area seen below the roots of molars.



* Zygoma:

Radioopaque line extending from zygomatic process

* Maxillary tuberosity.

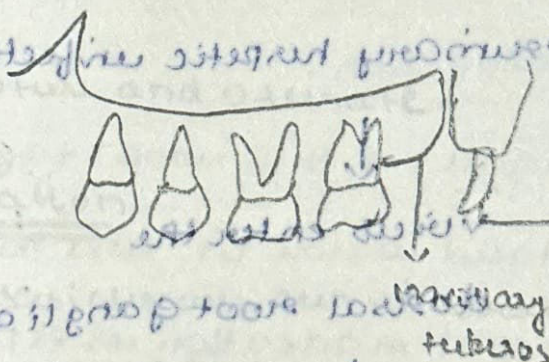
Radioopaque rounded area distal to the last molars.

* Pterygoid plates

Radiopaque areas seen hanging behind molars.

* Hamular notch.

Radiopaque Hook extending from Pterygoid plates.



* Inferior concha.

Radio-opaque area seen in nasal cavity.

* Nasal cavity

Radiolucent area on both sides of nasal septum.

* Mid Palatine suture.

Radiolucent area between the incisors.

~~Short cases~~:

04:) Burning Mouth syndrome.

Burning mouth syndrome is defined as a pain due to burning sensation of oral cavity with no clinical or laboratory findings related to it.

Cause:

* Idiopathic.
* Local factors
  - denture irritation
  - Xerostomia.
  - Drugs.
* Hormonal changes.

Clinical features:

* common in both male and female.
* Common in 45-50 years also in 18-20 years.
* It is characterized by the burning sensation in the oral cavity that start at morning, with gradual increases in pain and reduction of the pain at the night.

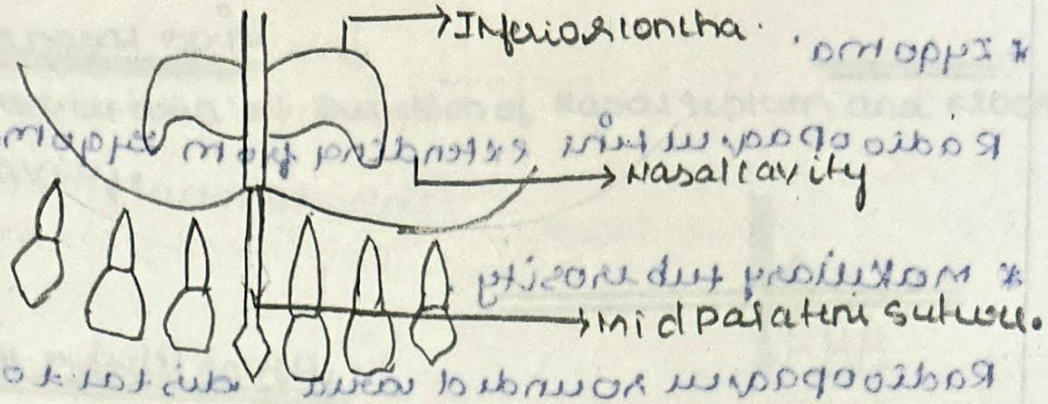
*common in lower lip and buccal mucosa.

*pain is relieved with eating foods or drinking.

Treatment:

Burning mouth syndrome.

- Initial care
  - Topical
    - *capsaicin gel 0.25%
    - *lipoic acid mouth rinses
  - Systemic
    - *vitamin A
    - *cyanocobalamin
    - *Folic acid.
- Later care.
  - *Amitriptalline 25mg for 15 days.
  - *Gabapentin 300mg
    - 1st day
    - 300mg → bid → 2nd day
    - 300mg → tid ⇒ 3rd day
    - (maximum dosage 2400mg)
  - *Nortriptalline 25mg.



b.) Recurrent Herpes / Secondary Herpes

* caused by Herpes simplex virus

Pathogenesis

Primary herpetic infection

↓

Virus enter the dorsal root ganglia

↓

Remain Latent

↓

Stimuli such as sunlight, stress etc

↓

Activation of virus.

↓

Recurrent Herpetic

Clinical Features:

* common in young agents.
* Thoracic ganglia is most commonly affected.
* Vesicles surrounded by erythematous halo is seen.
* Painful
* Vesicle rupture and ulcerate.

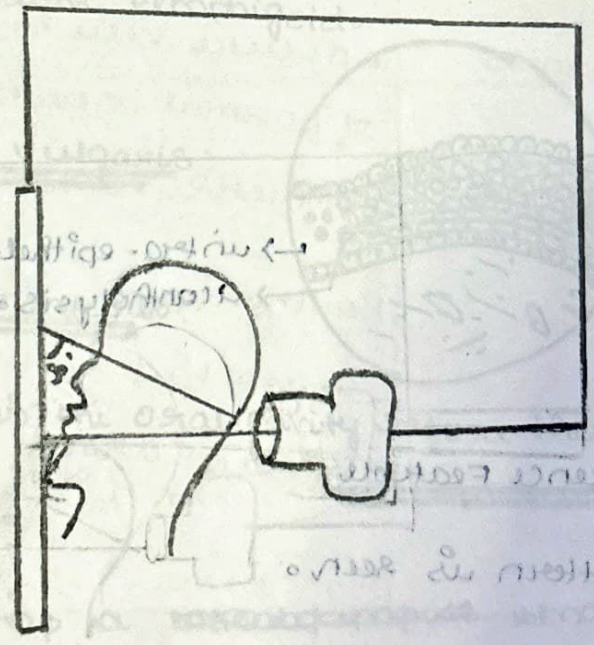
Oral Manifestation.

* Painful vesicles are seen in oral mucosal
* Lesions are symmetrical.
* Extend/ seen in one side.
* Vesicles surrounded by erythematous halo is seen.
* Rupture of vesicles leads to erosion.
* Heals after 2-4 weeks.
* If seen in pharynx, difficulty to eat and swallow.

Treatment:

→ Topical anasthetics can be used to relieve pain.

08) Waters view:



Waters view.

Film placement:

* Film is placed ⊥r to the floor.

Position of the patient

* Sagital plane should be vertical and ⊥r to the plane of the film.
* The canthomatal line should be 30° to the plane of the film.
* Patient's head should be extended such that the chin touches the film.

central ray:

* The central ray should be ⊥r to the film.

Structures seen:

* Frontal, ethmoidal and maxillary sinus.
* coronoid process and Temporomandibular joint.
* If the patient mouth is kept open, sphenoidal sinus can be seen.

SECTION C (Multiple Choice Questions)

1. Which metal is used for the target in the X-ray tube?
   a) Copper
   b) Aluminium
   c) Tungsten
   d) Molybdenum

2. Which of these cells is most radio-resistant?
   a) Early precursor cells of erythroblastic series
   b) Muscle cells
   c) Fibroblasts
   d) Vascular endothelial cells

3. The purpose of filter in x ray tube is:
   a) Shape the x-ray beam
   b) Remove short wave length x-rays
   c) Remove long wave length x-rays
   d) Prevent tube head leakage

4. What is the function of the lead foil in the film packet?
   a) Moisture protection
   b) To give the rigidity
   c) Absorb the back scatter radiation
   d) Protection against florescence

5. Which of these films has the greatest sensitivity to radiation?
   a) A- Speed
   b) C- Speed
   c) D- Speed
   d) E- Speed

6. How far above the work area in the dark room should the safe light be located?
   a) 6 – 8 in
   b) 1.5 ft
   c) 2.5 ft
   d) 4ft

7. Which of these structures appear radiopaque?
   a) Maxillary sinus
   b) Nasal fossa
   c) Nasal septum
   d) Mental foramen

8. Malignant tumors have:
   a) Well defined margins and do not metastasize
   b) Well defined and metastasize
   c) Irregular margins and do not metastasize
   d) Irregular margins and metastasize

9. Which of these conditions is caused by decreased vertical angulation?
   a) Elongation
   b) Overlapping
   c) Foreshortening
   d) Cone cutting

10. In the bisecting angle technique, the film is placed:
   a) Parallel to the tooth
   b) A as close to the tooth as possible
   c) Parallel to the bisector
   d) Perpendicular to the bisector

11. The size of the x-ray beam is regulated by:
   a) Collimation
   b) Filtration
   c) Tube rating
   d) Film

20/25

12. The film emulsion is hardened during:
a) Development
b) Rinsing
c) Fixation
d) Washing

13. Of the following conditions, which is not considered to be premalignant:
a) Syphilitic glossitis
b) Erosive lichen planus
c) Leukoedema
d) Leukoplakia

14. In hemochromatosis, pigment seen is:
a) Hemoglobin
b) Melanin
c) Hemosiderin
d) Bilirubun

15. Which of the following is another name for Paget's disease of the bone:
a) Osteopetrosis
b) Osteomyelitis
c) Osteitis Deformans
d) Osteogenesis Imperfecta

16. An example for Scrapable white lesion is:
a) Oral thrush
b) Leukolplakia
c) Chronic atrophic candidiasis
d) Acute atrophic candidiasis

17. Leukemia can cause
a) Gingival bleeding
b) Gingival enlargement
c) Oral infections
d) All of the above

18. A small mass of subacutely inflamed granulation tissue that develops at the oral terminal end of a draining sinus is called
a) Scar b) Fibroma c) Parulis d) Carbuncle

19. Small round, well-defined periapical radiolucency without a hyperostotic border is suggestive of:
a) Periapical granuloma
b) Apical periodontal cyst
c) Periapical abscess
d) Periapical condensing osteitis

20. Toluidine blue staining is used to:
a) Differentiate leukoplakia from lichen planus
b) Differentiate leukoplakia from oral submucous fibrosis
c) Detect dysplastic changes in a lesion
d) Stain Tzanck cells

21. In differentiating ulcers of aphthous stomatitis from those of recurrent intra-oral herpes, which of the following is not correct?
a) Aphthous ulcers have well-defined borders
b) Aphthous ulcers occur in clusters
c) Aphthous ulcers occur mostly on non-keratinized mucosa
d) Aphthous ulcers are more painful

22 Most common tumor of parotid gland is:
a) Pleomorphic adenoma
b) Adenoid cystic carcinoma
c) Cylindroma
d) Epidermoid carcinoma

23. The characteristic lesion of erythema multiforme is:
a) Split papule
b) Target lesion
c) Koplik's spot
d) Chancre

24. Which of the following is not used in treatment of oral candidiasis?
a) Corticosteroids
b) Nystatin
c) Topical analgesics
d) Chlorhexidine

25. Oral submucous fibrosis is caused by
a) Sunlight
b) Tobacco
c) Areca nut
d) Alcohol

Dr Anil Melath
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