# ORAL MEDICINE AND RADIOLOGY

### FIRST INTERNAL EXAMINATION

Time: 3 hours

Max marks: 100

### Long Essays

14\*2

- Classify red and white lesions of oral cavity .Describe in detail about the clinical features, etiology, diagnosis, management of OSMF
- 2. Describe in detail about the working of the X-ray tube, the properties of x-ray

### **Short Essays**

8\*4

- 1. Lichen planus
- 2. Antibiotic prophylaxis
- 3. Radiation effects on oral mucosa
- 4. Biopsy

### **Short Notes**

4\*10

- 1.oral thrush
- 2. Vital staining
- 3.Grids
- 4.Filters
- 5.Collimators
- 6.Bremstrahlung radiation
- 7. The effects of radiation on bone
- 8. Management of leukoplakia
- 9. Difference between deterministic and stochastic effects

#### 1. Red & white lesions

#### Classification

Hereditary white lesions, Developmental white lesions, Congenital white lesions, reactive/inflammatory white lesions, infectious white & red lesions, miscellaneous, normal variants, non keratotic white lesion, candidiasis, keratotic lesions with no malignant potential, Differential malignant lesions & conditions with malignant potential

#### OSMF

Etiology:Local factors – Areca nut, Capsaicin

systemic factors – nutritional deficiency, autoimmunity, genetic susceptibility

Clinical features : Age, sex, prodromal symptoms, advanced

OSMF: blanching & fibrotic bands, groups

**Diagnosis:** Haematological, Serological, Cytogenetics, Histopathological, Immunohistochemical & DD

### Management

- Group I: quit habit, pharmacotherapy, antioxidants
- Group II: Group I + intralesional inj. + physiotherapy
- Group III: Group I + surgical treatment

### 2. Working of x-ray tube

Mechanism of production of x - ray

### Properties of x ray

- Physical
- Chemical
- Biological
- Physiochemical

### 3. Lichen planus

#### Definition

**Etiology:** immunologic reactions , trauma, diabetes & hypertension, genetics hepatitis C infection

**Pathogenesis** 

Classifications: reticular, popular, plaque, atrophic, erosive, bullous

Clinical features: site, 6P, Wickham's striae

Syndromes associated: Grinspan Syndrome, overlap Syndrome

Investigations: chairside, lab

Treatment

## 4. Antibiotic prophylaxis

Situation

Drugs used

dose: adult & child

time, mode & duration of administration

## 5. Radiation effects on oral mucosa

Radiation mucositis

Clinical features: erythema, oedema, mucosal shedding, ulceration, pseudomembrane formation

management

#### 6. Biopsy

Definition

Indications

Contraindications

Types

### 7. Oral thrush

Etiology: local irritation, denture, immunosuppressants, broad spectrum antibiotic therapy

Clinical features : cottage cheese appearance, burning sensation , foul taste management

### 8. Vital staining

Staining cells in living state

Types: intra vital staining, supra vital staining

#### 9. Grids

Reduce scattered radiation

Composition

Advantages

disadvantages

#### 10.Filters

Removes low energy x rays

Decreased patient exposure

Types: inherent, external, total

### 11.Collimators

Lead metallic barrier with window Control size & shape of x ray beam Types: round, tubular, rectangular, slit

### 12. Bremstrahlung radiation

Breaking radiation
Sudden stoppage of electrons at target
Produced by direct hit / near miss

#### 13. Effects of radiation on bone

Bone marrow failure
Osteopenia , growth retardation, fracture
Decreased bone density

#### 14. Management of leukoplakia

Elimination of habit Pharmacotherapy Photodynamic therapy surgery

#### 15.deterministic effect

Definition
Severity depends on radiation dose

#### stochastic effects

Definition

All or none

2016

# ST. GREGORIOS DENTAL COLLEGE ORAL MEDICINE AND RADIOLOGY

# SECOND INTERNAL EXAMINATION

Time: 3 hours

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Long Essays

14\*2

- 1. Classify red and white lesion write in detail about etiology, clinical features, diagnosis, treatment of lichen planus.
- 2. Write in detail about Production of x-ray and factors that control X - ray beam

**Short Essays** 

8\*4

- 1. object localization technique
- 2. Trigeminal neuralgia
- 3. Role of radiography in diagnosis of periodontal disease
- 4. Oral manifestations of HIV

**Short Notes** 

4\*10

- 1. coin penny test
- 2. Radicular cyst
- 3. Oral manifestations of renal disease
- 4. Developer solution
- 5. Sialolithiasis
- 6. Collimator
- 7. Lip prints
- 8. Filters
- 9. TLD

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#### 1. Red & white lesions

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#### lichen planus

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Clinical features: site, 6P, Wickham's striae

Syndromes associated: Grinspan Syndrome, overlap Syndrome

Investigations: chairside, lab

**Treatment** 

#### 2. Production of x- ray

Mechanism of production of x - ray

### factors controlling x - ray beam

exposure time

current

voltage

filteration

collimation

#### 3. Object localization technique

Used for locating tooth / foreign body in jaw

Types: Miller, Clarks method

#### 4. Trigeminal neuralgia

Definition

Etiology: intracranial & extracranial

Types: pre trigeminal neuralgia, typical, atypical

Clinical feature: trigger points, paroxysmal pain, frozen face

DD: facial pain, migraine, odontogenic pain, post herpetic neuralgia

Treatment: pharmacological, surgical

# 5. Role of radiography in diagnosis of periodontal disease

Evaluates amount of remaining bone Condition of alveolar crest Bone loss in furcation

## 6. Oral manifestations of HIV

Grp I: strongly asso. – candidiasis oral hairy LP

Grp II: less commonly asso.- m.tb, melanotic hyper pigmentation

grpIII: lesions seen in – histomosis, mucormycosis

# 7. Coin penny test

To check safe light Procedure Diagram

# 8. Radicular cyst

Inflammatory cyst

Originate from epithelial remnants of pdl

Treatment: enucleation

# 9. Oral manifestations of renal disease

Periodontitis White patch Red patch mucositis

# 10. Developer solution

Developer: phenidone hydroquinone

Activator: Na/K hydroxide Preservative: Na sulphite Restrainer: K/Na bromide

### 11. Sialolithiasis

Benign condition
Stones in duct
Seen in major salivary gland

## 12. Collimator

Lead metallic barrier with window Control size & shape of x ray beam Types: round, tubular, rectangular, slit

## 13.Lip prints

Study- cheiloscopy Classification

### 14. Filters

Removes low energy x rays
Decreased patient exposure
Types: inherent, external, total

#### 15.TLD

Device to measure radiation exposure Principle – thermoluminescence Parts – card holder, TLD card

## ORAL MEDICINE AND RADIOLOGY

### THIRD INTERNAL EXAMINATION

14\*2

Max marks:100

Long	Essays		
LUIIS	Losays		

- 1. Classify salivary gland diseases.write in detail about xerostomia
- 2. Write in detail about TMJ imaging

### Short Essays 8\*4

- 1. Sjogrens syndrome
- 2. Dental management in Asthmatic patients
- 3. Dental management in Renal patients
- 4. Faulty radiographs

### Short Notes 4\*10

- 1. Sialosis
- 2. Sialolithiasis
- 3. Mumps
- 4. Jug handle view
- 5. PA water view
- 6. 6. lateral oblique
- 7. Pleomorphic adenoma
- 8. Dental treatment in pregnant women
- 9. Tire track pattern
- 10. Radiographic appearances in sialography

### 1. Salivary gland diseases

sialosis

sialolithiasis

sialadenitis

tumours

malignancies

#### Xerostomia

**Definition** 

Etiology

Clinical features

Management

#### 2. TMJ imaging

Plain radiography

OPG

Tomography

Arthrography Arthrography and the same and t

CT/MRI

### 3. Sjogrens syndrome

Triad of xerophthalmia, xerostomia, systemic disease

Treatment: symptomatic relief

### 4. Dental management of asthmatic patients

Avoid anxiety

Bring regular medication

Appointment late morning

Avoid inhalational anesthetics

Avoid LA with vasoconstrictor

**Avoid NSAIDS** 

### 5. Dental management of renal patients

Appointments in mid dialysis cycle

Monitor BP

Hemostatic investigations to be done

# 6. Faulty radiographs

Technique & projection error Processing error Exposure error

### 7. Sialosis

Non inflammatory non neoplastic swelling of major salivary gland

Treatment: surgical removal, sialendoscopy

### **Sialolithiasis**

Benign condition

Stones in duct

Seen in major salivary gland

#### 8. Mumps

paramyxovirus

Viral infection affecting salivary glands mainly parotid Swollen painful salivary gland, fever, headache, fatigue

### 9. Jug handle view

Modification of SMV

To visualize zygomatic arch, temporal process of zygoma, zygomatic process of temporal bone

### 10.PA water view

Radiographic view of skull Better imaging of sinus

### 11.Lateral oblique

Radiograph of teeth in buccal segment Head is in lateral position

# 12. Pleomorphic adenoma

Most common salivary gland tumour

### Aka benign mixed tumour

Site parotid

### 13. Dental treatment in pregnant women

In 2<sup>nd</sup> trimester

Position: left lateral

### 14. Tire track pattern

Reverse film position

Convexity of embossed dot should always face x-ray tube

## 15. Radiographic appearances in Sialography

Cherry blossom: sjogrens

Sausage: sialodochitis

Tree in winter: parotid

Bush in winter: mandibular

Ball in hand: tumour

# ORAL MEDICINE AND RADIOLOGY

# FIRST INTERNAL EXAMINATION

Time: 3 hours

Max marks:100

Long Essays

14\*2

- Classify white lesions. Describe in detail the aetiology, early and late clinical features, diagnosis and management of Oral Sub mucous Fibrosis.
- 2. Describe in detail about X-ray production, state the various properties of X-ray.

### **Short Essays**

8\*4

- 3. Describe in detail about Xerostomia, its etiology, clinical features, diagnosis and management.
- 4. Explain Sialography, indication, contraindication, describe about properties of contrast media, procedure and various radiographic appearences.
- 5. Rheumatoid Arthritis
- 6. Describe in detail about the dental management of renal patients

### **Short Notes**

4\*10

- 7. Sialosis
- 8. Ankylosis
- 9. Plumbism
- 10. Biopsy
- 11. Grids and Collimators
- 12. Radiation Protection
- 13. Coin Penny Test
- 14. Effects of radiation on bone
- 15. Trigemminal neuralgia
- 16. Brehmsstrralung Radiation

#### 1. White lesions

Classification

Hereditary white lesions, Developmental white lesions,
Congenital white lesions, reactive/inflammatory white lesions,
infectious white lesions, miscellaneous, normal variants, non
keratotic white lesion, candidiasis, keratotic lesions with no
malignant potential, Differential malignant lesions & conditions
with malignant potential

#### **OSMF**

Etiology:Local factors – Areca nut, Capsaicin systemic factors – nutritional deficiency, autoimmunity, genetic susceptibility

Clinical features : Age, sex, prodromal symptoms, advanced

OSMF: blanching & fibrotic bands, groups

Diagnosis: Haematological, Serological, Cytogenetics, Histopathological, Immunohistochemical & DD Management

- Group I: quit habit, pharmacotherapy, antioxidants
- Group II: Group I + intralesional inj. + physiotherapy
- Group III: Group I + surgical treatment

### 2. X-ray production

Mechanism of production of x – ray properties of x-ray

- Physical
- Chemical
- Biological Biological Biological Biological
- Physiochemical was base to apticulous adds M

### 3. Xerostomia

Definition

Etiology

Clinical features

Management

# 4. Sialography

Radiograph of salivary gland Radiopaque dye injected into ducts Used to identify blocked gland /duct

## 5. Rheumatoid arthritis

Jaw problems Dry mouth Elys cyst Sharpened pencil condyle

### 6. Dental management of renal patients

Appointments in mid dialysis cycle Monitor BP Hemostatic investigations to be done

### 7. Sialosis

Non inflammatory non neoplastic swelling of major salivary gland Treatment: surgical removal, sialendoscopy

### 8. Ankylosis

Mandible fused to fossa by bony or fibrotic tissue Classification

Treatment: arthroplasty

### 9. Plumbism

Pigmentation due to lead intoxication Mech: production of lead sulphide

Oral manifestations: Burtonian line, ulcerative stomatitis, tongue

tremors, excess salivation, metallic taste

Treatment: EDTA, dimercaprol

### 10.Biopsy

Definition Indications Contraindications Contraindications Types

#### 11.Grids

Reduce scattered radiation

Composition

Advantages

Disadvantages

#### Collimators

Lead metallic barrier with window

Control size & shape of x ray beam

Types: round, tubular, rectangular, slit

# 12. Radiation protection

Protection of patient: patient selection, use of proper equipment

Protection for operator

Protection of environment

## 13. Coin penny test

To check safe light

Procedure

Diagram

# 14. Effects of radiation on bone

Bone marrow failure

Osteopenia, growth retardation, fracture

Decreased bone density

# 15. Trigeminal neuralgia

Definition

Etiology: intracranial & extracranial

Types: pre trigeminal neuralgia, typical, atypical

Clinical feature: trigger points, paroxysmal pain, frozen face

sweets criteria

DD: facial pain, migraine, odontogenic pain, post herpetic neuralgia Treatment: pharmacological, surgical

# 16. Bremstrahlung radiation

Breaking radiation
Sudden stoppage of electrons at target
Produced by direct hit / near miss

# ORAL MEDICINE AND RADIOLOGY

# SECOND INTERNAL EXAMINATION

Time: 3 hours

Max marks:100

### Long Essays

14\*2

- 1. Classify oro-facial pain. Describe in detail the aetiology, clinical features, diagnosis and management of Trigemninal Neuralgia.
- 2. Describe Latent Image formation. Enumerate the composition and functions of processing solutions. Add a note on automatic processor.

### **Short Essays**

8\*4

- 3. DD of single ulcers
- 4. Fibrous dysplasia
- 5. MPDS
- 6. DD of periapical radiolucencies

### **Short Notes**

4\*10

- 7. Aphthous ulcer
- 8. Cluster headache
- 9. Atypical odontalgia
- 10. Tooth ache of non dental causes
- 11.Cherubism
- 12.Localisation technique
- 13. Dark room requirements
- 14.PCOD (Periapical Cement-osseous Dysplasia)
- 15. Coin penny test
- 16.Pagets disease

# 1. Oro facial pain

MPDS

trigeminal neuralgia

TMJ pain

eagles syndrome

migraine and a supplementary would be used a supplementary and the supplementary and the

neuralgias MA Andakhizaval Isalmad old rakon

### trigeminal neuralgia

Definition

Etiology: intracranial & extracranial

Types: pre trigeminal neuralgia, typical, atypical

Clinical feature: trigger points, paroxysmal pain, frozen face

sweets criteria

DD: facial pain, migraine, odontogenic pain, post herpetic neuralgia

Treatment: pharmacological, surgical

### 2. Latent image formation

Definition

Diagram

### **Composition of processing solutions**

Developer

Fixer

water

# Automatic processor grammad gardenist ababab has aslamed the

Consist of roller film transporter, developer fixer and water

In continuous motion

Advantages

Disadvantages

### 3. DD single ulcers

Aphthous ulcer

Carcinomatous ulcer

Traumatic ulcer

# 4. Fibrous dysplasia

Definition

Features: sites, shepherd crook deformity, monostotic, polyostotic

Syndromes

Radiographic features: ground glass, orange peel Diagnosis: biochemical investigation- ALP, urinary hydroxyprolne

Histology: Chinese letter pattern

Management: surgical, pharmacological Etiology: intractanial & extractan

### 5. MPDS

Trigger points present

Laskins cardinal symptoms

Treatment: muscle relaxants, NSAIDs, occlusal rehabilitation

# 6. DD of periapical radiolucencies

Periapical abcess

Periapical granuloma

Periapical cyst

Residual cyst

Periapical scar

### 7. Aphthous ulcer

c/f: females, 2<sup>nd</sup> decade, tingling, burning

treatment: symptomatic relief

### 8. Cluster headache

Alarm clock headache Begin at night Last 15 to 180 minutes

### 9. Atypical odontalgia

Continuous pain in the absence of identifiable cause on clinical / radiographic examination

Treatment: gabapentin, tricyclix

### 10. Tooth ache of non dental causes

Musculoskeletal origin
Neuropathic origin
Neurovascular origin
Systemic disorders
Inflammatory condition

### 11.Cherubism

Benign dysplastic bone disease

Clinical features: age, eye to heaven appearance, cherubic facies, intra

oral manifestations

Radiographic features: bilateral, multilocular, multicystic, expansile

lesion

### 12.Localization techniques

Millers technique Clarks technique

### 13.Dark room requirements

safe light
processing tank
timer
thermometer
drying rack

### 14.PCOD

Replacement of normal bone by tissue

Focal involvement

Features: age, gender, site,

Radiographic features: 3 stages, loss of lamina dura

### 15. Coin penny test

To check safe light Procedure Diagram

### 16. Pagets disease

Bone disease – abnormal bone resorption & deposition

Clinical features: age, simian stance, bone pain, leontiasis ossea

Radiographic features: stages – radiolucent resorptive stage: ground glass, radiopaque stage:cotton wool appearance

Black beard/ Lincoln sign

Osteoporosis circumscripta

Hypercementosis

Treatment: calcitonin, sodium etidronate

# ORAL MEDICINE AND RADIOLOGY

# THRID INTERNAL EXAMINATION

Time :3 hours	Max marks:100
LONG ESSAY	14*2
<ol> <li>DD of Periapical Radiolucencies</li> <li>DD of Multilocular radiolucencies</li> </ol>	
SHORT ESSAY	8*4
<ul><li>3. DD of Mixed radiolucencies</li><li>4. Role of radiographs in trauma</li><li>5. Role of radiographs in Periodontal</li><li>6. Role of radiographs in dental carie</li></ul>	
SHORT NOTES	4*10
7. Oral manifestations and Dental ma 8. Renal diseases 9. Pregnant patients 10. Hypertensive patients 11. Diabetic patients 12. Renal osteodystrophy 13. Atrophic glossitis 14. Ameloblastoma 15. Odontogenic myxoma 16. CEOT	anagement of :

### 1. DD of periapical radiolucencies

Periapical abcess

Periapical granuloma

Periapical cyst

Residual cyst

Periapical scar

### 2. DD of multilocularradiolucencies

ameloblastoma
odontogenicmyxoma
odontogenickeratocyst
aneurysmal bone cyst

### 3. DD of mixed radiolucencies

osteosarcoma
odontoma
adenomatoid odontogenic tumour
CEOT
PCOD

### 4. Role of radiographs in trauma

identifying fracture line, tension pneumothorax, tooth fragments / foreign materials

### 5. Role of radiographs in periodontal diseases

Evaluates amount of remaining bone Condition of alveolar crest Bone loss in furcation

### 6. Role of radiographs in dental caries

depth of lesion

amount of remaining dentin thickness

periapical involvement

# 7. Renal diseases

Management: Appointments in mid dialysis cycle, Monitor BP,

Hemostatic investigations to be done

# 8. Pregnant patients

O/M: cgg, gingival enlargement Management: oral prophylaxis

# 9. Hypertensive patients

O/M: bleeding gums, cgg, gingival enlargement Management: substitute drugs, oral prophylaxis

### 10. Diabetic patients

O/M: bleeding gums, xerostomia, candidiasis, abnormal taste Management: antifungal, salivary substitute, prophylactic antibiotics

### 11. Renal osteodystrophy

definition pathophysiology treatment

## 12. Atrophic glossitis

absence of filiform/ fungiform papillae caused by deficiency of riboflavin, niacin, folic acid

### 13. Ameloblastoma

odontogenictumour in jaw bone types egg shell crackling

radiographic appearance: soap bubble appearance

# 14. Odontogenic myxoma

benigntumour slow painless bony expansion

# 15.<u>CEOT</u>

akapindborgtumour benign but locally aggressive