Time Allowed: 2 Hours Maximum Marks: 24

INSTRUCIONS: Attempt all questions. All questions carry equal marks.

Q.1 A 60 Years old Insulin Dependant Diabetic attends your dental practice for his dental treatment. During the course of the treatment he becomes sweaty and collapses. His pulse is rapid and full.

a) Discuss your differential diagnosis

1 Mark

b) What would be your line of management.

2 Marks

Topic Specification: Medical Emergencies

Key:

Possible Diagnosis

1 mark

Hypoglycemia
Vasovagal fainting
Myocardial Infarction

Seek medical help if no revovery

Most likely diagnosis is hypoglycemia

Treatment 2 marks

Stop all procedure immediately
Chair positioning to rule out vasovagal fainting
Monitor vital signs and administer oxygen via face mask
Obtain blood glucose using a glucometer

If vasovagal attack it would be amenable to chair positioning If hypoglycemia Glucagon 1mg i.m. or s.c. or Glucose 50mL of 50% i.v.

Book Reference: SCULLY, C; CAWSON, RA Medical Problems in Dentistry (5th Ed)

Q.2 Discuss the contemporary principles of medical management of trigeminal Neuralgia. 3 Marks

Topic Specification: Orofacial Pain

Key:

Medical management is always the first choice

Carbamazepine (Tegretol, Carbatrol)
 Most commonly used drug
 100-200mg b.d. or t.d.s. maximum 1600mg / day
 Monitor blood values to identify agranulocytosis, marrow suppression

- 2. Phenytoin *(Dilantin, Phenytek)*150-300 mg daily either alone or in combination with carbamazepine
- 3. Other drugs 1 Mark
 - a) Clonazepam
 - b) Baclofen (Lioresal)
 - c) Oxcarbazepine (Trileptal)
 - d) Gabapentin

Book Reference: SCULLY, C; CAWSON, RA Medical Problems in Dentistry (5th Ed)

- Q. 3 A 65 Years old female presents to you with bilateral white patches on her buccal mucosa which are sensitive to spicy food. The white patches develop recurrent ulceration. She also has a history of pruritic skin lesions on her wrists and arms.
 - a) What is your most likely diagnosis?

1 Mark

b) Describe the microscopic features you would expect to find on her biopsy specimen 2 Marks

Topic Specification: Vesciculo-bullous Diseases

Key:

Most likely Diagnosis

Lichen planus with oral and cutaneous involvement

1 Mark

Microscopic features on biopsy specimen

Lichen planus with oral and cutaneous involvement 2 Marks

- 1. Orthokeratosis / Parakeratosis
- 2. Rete pegs may be absent / hyperplastic or appear as "Saw tooth"
- 3. Intense band-like infiltrate of T lymphocytes adjacent to the epithelium
- 4. Destruction of basal layer of epithelium (hydropic degeneration)
- 5. Degenerating keratinocytes at E CT interface & are termed colloid / civatte / hyaline bodies
- 6. No significant degree of epithelial atypia

Book Reference: LAMEY, PJ; LEWIS, MAO A Clinical Guide to Oral Medicine (3rd Edition)

Q. 4 A 60 Years old gentleman presents to you with a history of radiation therapy for a malignancy in the head and neck region. He has a severe xerostomia. What oral complications could arise in this patient?

Topic Specification: Salivary Gland disorders

Key:		3 Marks
1.	Difficulty in swallowing, speech and general discomfort	½ Mark
2.	Taste disturbances	½ Mark
3.	Oral candidiasis and other opportunistic infections	½ Mark
4.	Mucositis & oral ulcers	½ Mark
5.	Rampant dental caries especially cervical caries	½ Mark
6.	Periodontal disease	1/2 Mark

LAMEY, PJ; LEWIS, MAO A Clinical Guide to Oral Medicine (3rd Edition) Book Reference:

Q. 5 A 50 Years old gentleman presents with a white patch on the floor of his mouth. The biopsy report reveals epithelial dysplasia. What microscopic features would you expect to find in his biopsy specimen?

Topic Specification: Oral Precancer

Key: 3 Marks

- 1. Loss of polarity of the basal cells
- 2. Presence of > one layer of cells having a basaloid appearance
- 3. Increased nuclear-cytoplasmic ratio
- 4. Drop-shaped rete processes
- 5. Irregular epithelial stratification
- 6. Increased number of mitotic figures (a few abnormal mitoses may be present)
- 7. Presence of mitotic figures in superficial half of the epithelium
- 8. Cellular pleomorphism
- 9. Nuclear hyperchromatism
- 10. Enlarged nucleoli
- 11. Reduction of cellular cohesion
- 12. Keratinisation of single cells or cell groups in the prickle layer

Book Reference: LAMEY, PJ; LEWIS, MAO A Clinical Guide to Oral Medicine (3rd Edition)

Q. 6 Describe the differences between the presentation of minor and major oral aphthous ulcers.

Topic Specification: Oral Ulceration

Key:

Minor Aphthous Ulcers (80%)

1 ½ Marks

- I Fewest recurrences & shortest duration
- I Involve anterior areas:

Buccal & labial mucosa – most common sites Ventral surface of tongue

Muco-buccal fold Floor of mouth

Keratinized mucosa rarely involved

Common in 10-19 Y age-group
3-10 mm in size & 1-5 lesions may be present
Pain disproportionate to the size of the lesions
Heal in 7-14 days without scarring
Recurrence rate ranges from once / year to twice / month

Major Aphthous Ulcers (10%)

1 1/2 Marks

Longest duration per episode
May involve any part of mucosa:
Labial mucosa – most common site
Soft palate / tonsillar areas and fauces
Onset after puberty may continue to develop for up to 20 years or more
1-3 cm in diameter but deeper & usually 1-10 in number
Heal in 2-6 weeks often with scarring

Book Reference: LAMEY, PJ; LEWIS, MAO A Clinical Guide to Oral Medicine (3rd Edition)

Q. 7 A 65 Years old female with a history of systemic steroids use collapses during surgical removal of her lower left third molar. What is the most likely cause and how would you manage her?

Topic Specification: Oral Manifestations of Systemic Diseases (Endocrine

Disorders)

Key:

Possible Diagnosis

1 mark

Addisonian / steroid Crisis

Treatment 2 Marks

- 1. Lay patient flat with legs raised (unless vomiting) & give 200 mg hydrocortisone i.v.
- 2. Summon medical help & give oxygen and if necessary artificial ventilation
- 3. Monitor vital signs & start BLS if necessary
- 4. Take blood for glucose & electrolyte estimations & give i.v. infusion of dextrose saline 1 litre over 2h with 200 mg hydrocortisone sodium succinate, repeat 4-6h as required

Continue with oral replacement for at least 3 days

Book Reference: SCULLY, C; CAWSON, RA Medical Problems in Dentistry (5th Ed)

Q. 8 Discuss the manifestations of Oral Candidiasis in full denture patients

Topic Specification: Fungal Infections

Key:

Denture Stomatitis 1 ½ Marks

Also known as chronic atrophic candidiasis Localized to maxillary denture-bearing areas with varying degrees of erythema Rarely symptomatic despite angry clinical appearance May represent a tissue response by host to microorganisms beneath a denture

Angular Cheilitis

1 ½ Marks

Involvement of angles of mouth characterized by erythema, fissuring & scaling

Older person with reduced vertical dimension & accentuated folds at corners of mouth susceptible

20 % *C. albicans* alone

60 % C. albicans & Staph aureus

2 % S. aureus alone

Book Reference: LAMEY, PJ; LEWIS, MAO A Clinical Guide to Oral Medicine (3rd Edition)