POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

SELECTION EXAMINATION IN MD (RESTORATIVE DENTISTRY) – OCTOBER 2014

Date :- 15th October 2014 **Time :-** 1.00 p.m. – 4.00 p.m.

PAPER I

Answer three (03) questions from each part.
Answer each question in a separate book.

PART A (GENERAL ANATOMY)

1.
1.1. Describe the anatomy of the floor of the mouth (50 marks)

1.2. State the clinical importance of the structures in the floor of the mouth (50 marks)

2.
2.1. Describe the anatomy of the internal structure of the right atrium (40 marks)

2.2. State two (02) developmental anomalies of the heart (20 marks)

2.3. Describe the anatomical basis for the occurrence of the two developmental anomalies mentioned in 2.2 (40 marks)

3. In respect of the larynx describe the

3.1. skeletal framework (30 marks)

3.2. attachment of muscles (40 marks)

3.3. nerve supply of the mucous membrane (30 marks)

4. In respect of the mandibular division of the trigeminal nerve

4.1. state the nuclei and their location (20 marks)

4.2. describe its extra cranial course including the structures supplied (80 marks)

Contd /2-

PART B (DENTAL ANATOMY)

5. Describe the following indicating its importance in clinical practice

5.1. Morphology of the pulp in a permanent maxillary first molar tooth (40 marks)

5.2. Junctional epithelium (30 marks)

5.3. Macroscopic appearance of the dorsum of the tongue (30 marks)

6.

6.1. Compare cementum and alveolar bone with reference to origin, structure and functions (60 marks)

6.2. Describe the abnormalities in the formation of cementum and indicate the clinical implications (40 marks)

7.

7.1. Describe the defense mechanisms of the dentine-pulp complex for external stimuli (60 marks)

7.2. Describe how the age changes in the dentine -pulp complex influence the mechanisms mentioned in 7.1 (40 marks)

8. Describe the

8.1. histological basis of acid etching of enamel surface (40 marks)

8.2. structure of dentinal tubules (30 marks)

8.3. dentino enamel junction (30 marks)

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Date :- 16th October 2014 **Time :-** 9.00 a.m. – 11.00 a.m.

PAPER II

Answer two (02) questions from each part.
Answer each question in a separate book.

PART A (PHYSIOLOGY)

1.

1.1 Explain the neural control of mastication (30 marks)

1.2 Explain the physiological basis of the following

1.2.1 Presence of dysphagia in patients with ataxia (25 marks)

1.2.2 Changes in the masticatory pattern with the sticky food (15 marks)

1.3 Define the following terms

1.3.1 Nociception (10 marks)

1.3.2 Hyperalgesia (10 marks)

1.4 State the mechanisms responsible for hyperalgesia (10 marks)

Contd.../2-

2.

2.1 List the hormones involved in calcium homeostasis (15 marks)

2.2 Explain the actions of hormones mentioned in 2.1 in calcium homeostasis (40 marks)

2.3 Explain the physiological basis of the following

2.3.1 Breathing into a bag alleviates carpopedal spasm

2.3.2 Development of osteoporosis in post-menopausal women

2.3.3 Development of rickets in children of cold and smoggy countries (45 marks)

3.

3.1 List three (03) causes for metabolic acidosis (15 marks)

3.2 State the changes in the blood chemistry in uncompensated metabolic acidosis (40 marks)

3.3 Explain the compensatory mechanisms in metabolic acidosis (45 marks)

PART B (PATHOLOGY)

4.

4.1 List the different pathological processes that lead to fibrosis (30 marks)

4.2 Explain the pathogenesis of fibrosis mentioned in 4.1 (50 marks)

4.3 List the complications of fibrosis (20 marks)

Contd.../3-

5.

5.1 Explain the term "chronic inflammation" (20 marks)

5.2 List the different ways in which chronic inflammation occur (30 marks)

5.3 Describe the mechanisms of soft and hard tissue destruction in chronic inflammation (50 marks)

6.

6.1 Describe the process of wound healing (50 marks)

6.2 List the factors which influence wound healing (25 marks)

6.3 State the complications of wound healing (25 marks)