POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

SELECTION EXAMINATION IN MD (ORAL & MAXILLOFACIAL SURGERY) – OCTOBER 2015

Date :- 7th October 2015   **Time :-** 9.00 a.m. – 12.00 noon

PAPER I

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

PART A (GENERAL ANATOMY)

1. Describe the following indicating the importance in clinical practice

     1.1.   Superior mediastinum.   (40 marks)

     1.2.   Intercostal space.   (30 marks)

     1.3.   Pleural cavity.   (30 marks)

2. In respect of the middle ear, describe

     2.1.   the development.   (20 marks)

     2.2.   the arrangement of contents in relation to function.   (40 marks)

     2.3.   boundaries and communications with their
           clinical implications.   (40 marks)

3.
     3.1.   Describe the anatomy of the parapharyngeal space.   (50 marks)

     3.2.   State the clinical relevance of the parapharyngeal space.   (50 marks)

4. In respect of the temporal fossa describe the

     4.1.   boundaries including osteology.   (30 marks)

     4.2.   fascial arrangement.   (40 marks)

     4.3.   clinical implications.   (30 marks)

PART B (DENTAL ANATOMY)

5.

5.1. Outline the steps involved in the process of cementum formation. (50 marks)

5.2. Indicate the anomalies of cementum formation and their effects. (25 marks)

5.3. List the physicochemical properties of cementum and state their clinical significance. (25 marks)

6.

6.1. Describe the development of the dentogingival junction. (30 marks)

6.2. List the functions of the dentogingival junction. (30 marks)

6.3. Describe how the structure of the dentogingival junction is adapted to carry out its functions. (40 marks)

7.

7.1. Explain the functional characteristics of cranial neural crest cells. (40 marks)

7.2. What are the structural components and constituents of the epithelial connective tissue interface? (40 marks)

7.3. List the functions of the epithelial connective tissue interface. (20 marks)

8.

8.1. List the cartilages involved in the development and growth of the mandible. (20 marks)

8.2. State the fate of the structures mentioned in 8.1. (40 marks)

8.3. Discuss the factors affecting the postnatal growth of the mandible. (40 marks)

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PAPER II

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

PART A (PHYSIOLOGY)

1.

1.1. Classify anaemia based on red cell indices.   (15 marks)

1.2. Explain the clinical features seen in an anaemic patient.   (40 marks)

1.3. List the investigations that could be carried out to arrive at the diagnosis.   (30 marks)

1.4. List the steps one would take to prevent sickle cell crisis during and following surgery under general anaesthesia.   (15 marks)

2. Explain the physiological basis of the following

2.1. Presence of haematemesis in a patient with cirrhosis.   (25 marks)

2.2. Presence of oedema in a patient with nephrotic syndrome.   (25 marks)

2.3. Degree of liver cell damage is indicated by elevated levels of aminotransferases.   (25 marks)

2.4. Pink frothy sputum in a patient with congestive cardiac failure.   (25 marks)

3.

3.1. Classify nerve fibres according to conduction velocity.   (25 marks)

3.2. State one (01) afferent signal transmitted by each fibre type
mentioned in 3.1.   (25 marks)

3.3. Explain two (02) mechanisms by which different intensities
of a sensory signal are transmitted in a nerve tract.   (50 marks)

4.

4.1. Outline the role of the respiratory centre in the regulation
of respiration.   (40 marks)

4.2. Define the term "apnoea".   (10 marks)

4.3. List four (04) causative factors of obstructive sleep apnoea. (20 marks)

4.4. State the cardiovascular effects of obstructive sleep apnoea. (30 marks)

PART B (PATHOLOGY)

5.

5.1. What is meant by congestion?   (10 marks)

5.2. Tabulate the similarities and differences between active and
passive congestion.   (20 marks)

5.3. Name two (02) situations each where active and passive
congestion occur.   (10 marks)

5.4. Explain the pathogenesis of oedema in a congested tissue.   (20 marks)

5.5. Outline the changes of chronic venous congestion in following organs

5.5.1. Lung   (20 marks)

5.5.2. Liver   (20 marks)

6.

6.1. Define the term "granuloma". (15 marks)

6.2. Classify different types of granulomatous inflammation giving examples. (30 marks)

6.3. What are the complications of chronic inflammation? (30 marks)

6.4. How does chronic inflammation differ from acute inflammation? (25 marks)

7.

7.1. Draw and label a typical bacterial cell. (20 marks)

7.2.

7.2.1. List main types of bacterial toxins. (06 marks)

7.2.2. Compare the toxins listed in 7.2.1. (24 marks)

7.3.

7.3.1. Name five (05) bacteria which cause pyogenic infections. (10 marks)

7.3.2. State the significance of a sample of pus in the management of pyogenic infections. (10 marks)

7.4.

7.4.1. State four (04) different modes of actions of antibiotics giving examples. (20 marks)

7.4.2. List causes for failure of antibiotic treatment. (10marks)

8.

8.1. What is a tumour marker? (20 marks)

8.2. Explain the use of serological tumour markers in the management of malignancies with clinical examples. (60 marks)

8.3. State the drawbacks of tumour markers in clinical oncology. (20 marks)