POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

SELECTION EXAMINATION IN MD (ORAL & MAXILLOFACIAL SURGERY) – OCTOBER 2016

Date: 6th October 2016 **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.

1.1 Describe the course and immediate anatomical relations of the right phrenic nerve (50 marks)

1.2 List the structures supplied by the phrenic nerve (20 marks)

1.3 A patient with an inflamed gall bladder was experiencing pain in the right shoulder area. Explain the anatomical basis of the above observation (30 marks)

2.

2.1 Describe the arrangement of anatomical triangles of the neck with a labeled diagram (40 marks)

2.2 List the contents of the posterior triangle of the neck (30 marks)

2.3 A patient with a right side lateral neck swelling presented with numbness of the same side of the neck, difficulty in raising the right hand above the level of the shoulder and difficulty in breathing.

Explain the above mentioned observations (30 marks)

Contd..../2-

3.

3.1 Outline the arrangement of lymph nodes in the head and neck region indicating the areas of drainage (60 marks)

3.2 Explain the clinical relevance of the information mentioned in 3.1 (40 marks)

4.

4.1 In respect of the soft palate

4.1.1 describe the musculature (50 marks)

4.1.2 list the functions (20 marks)

4.2 Explain how the structural deformities of the soft palate affect the functions mentioned in 4.1.2 (30 marks)

PART B (DENTAL ANATOMY)

5.

5.1 List ten (10) age changes of the oral mucous membrane (20 marks)

5.2 Explain the protective mechanisms of the following against microorganisms

5.2.1 Oral mucous membrane (20 marks)

5.2.2 Saliva (15marks)

5.2.3 Crevicular fluid (15 marks)

5.3 Explain the following statements

5.3.1 Injection of local anesthetics into the gingiva is difficult and painful than that of buccal mucosa (15 marks)

5.3.2 Lining mucosa gapes when incised and may require suturing (15 marks)

Contd..../3-

6.

6.1 State the mechanisms that help in the postnatal growth of the nasomaxillary complex (20 marks)

6.2 Explain how the following dimensions of the nasomaxillary complex are altered by the mechanisms mentioned in 6.1.

6.2.1 Anteroposterior (20 marks)

6.2.2 Transverse (20 marks)

6.2.3 Vertical (20 marks)

6.3 List the factors that affect the growth and development of the craniofacial complex (20 marks)

7. Regarding the Hertwig's epithelial root sheath

7.1 Outline its formation (20 marks)

7.2 Describe the histological appearance (20 marks)

7.3 List the functions (30 marks)

7.4 State its fate and clinical relevance (30 marks)

8.

8.1 Outline the steps involved in the development of the major salivary glands (30 marks)

8.2 Describe the microscopic appearance of a

8.2.1 myoepithelial cell (30 marks)

8.2.2 mucous cell of a salivary gland (30 marks)

8.3 State the functions of myoepithelial cells (10 marks)

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Date : 7th October 2016 Time: 9.00 a.m. – 12.00 noon

PAPER II

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

PART A (PHYSIOLOGY)

1.

1.1 Discuss the role played by humoral agents in the control of blood circulation (30 marks)

1.2 Describe the types of shock (40 marks)

1.3 Describe the stages of shock and the circulatory compensatory mechanisms (30 marks)

2 Explain the physiological basis of the following

2.1 Level of the lesion in Horner's syndrome is indicted by the distribution of anhidrosis (25 marks)

2.2 Brown tumour in hyperparathyroidism (25 marks)

2.3 Ascites (25 marks)

2.4 Maintenance of blood pH by plasma proteins (25 marks)

Contd...../2-

3.

3.1 Define the term "synapse" (20 marks)

3.2 State two (02) modalities of synaptic transmission (20 marks)

3.3 State the mechanisms by which drugs antagonize neurotransmission (40 marks)

3.4 List four (04) conditions that may occur due to reduced levels of GABA (gamma aminobutyric acid) in the brain (20 marks)

4.

4.1 Describe the CO_2 transport in blood (40 marks)

4.2 Draw and label the oxygen-hemoglobin dissociation curve (20 marks)

4.3 State the advantages of the curve mentioned in 4.2 as compared to a linear relationship (40 marks)

PART B (PATHOLOGY)

5.

5.1

5.1.1 Define the term "necrosis" (10 marks)

5.1.2 State the histological changes seen in cells undergoing necrosis (20 marks)

5.2

5.2.1 List the main forms of necrosis (12 marks)

5.2.2 Describe each type of necrosis mentioned in 5.2.1 with appropriate examples (30 marks)

5.2.3 List the outcome of necrosis (08 marks)

5.3 Tabulate the similarities and differences between necrosis and apoptosis (20 marks)

Contd..../3-

6.

6.1 Define "immunity" (05 marks)

6.2 State different ways of achieving immunity giving examples (20 marks)

6.3 Describe the structure of different types of immunoglobulin (35 marks)

6.4 List three (03) undesirable consequences of immunity and explain one (01) of them (25 marks)

6.5 Describe the pathological basis of Di-George Syndrome (15 marks)

7.

7.1 List two (02) pathological processes each, causing the change of colour of an organ or tissue to

7.1.1 red (10 marks)

7.1.2 yellow (10 marks)

7.1.3 white (10 marks)

7.2 Explain the pathogenesis of the colour changes mentioned in 7.1 (70 marks)

8.

8.1 List the indications and limitations of the assessment of a parotid mass by fine needle aspiration (40 marks)

8.2 The fine needle aspirate of a patient with a parotid lesion reveals pus

8.2.1 Discuss the pathogenesis of suppuration (25 marks)

8.2.2 Outline the factors that decide on antibiotic therapy in this patient (35 marks)