

POSTGRADUATE INSTITUTE OF MEDICINE  
UNIVERSITY OF COLOMBO

SELECTION EXAMINATION IN MD (ORAL & MAXILLOFACIAL  
SURGERY) - SEPTEMBER/OCTOBER 2017

Date: 12<sup>th</sup> October 2017

Time: 9.00a.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. Outline the structure of trachea. (20 marks)
- 1.2. Describe the immediate relations of trachea. (40 marks)
- 1.3. State the clinical relevance of trachea. (40 marks)

2.

- 2.1. List the functional components of facial nerve and state their functions. (30 marks)
- 2.2. Describe the course and distribution of the facial nerve. (50 marks)
- 2.3. Two patients were admitted to OMF ward after trauma. Clinical examination revealed patient A having right side facial paralysis and patient B having facial paralysis with hyperacusis on right side.

Explain the anatomical basis for the clinical features noted in patient A and patient B. (20 marks)

3. A 45-year-old diabetic male sustained a left sided upper lip laceration following trauma, which was subsequently infected. Few days later, he developed a severe headache, fever and loss of sensations over the left forehead and mid-face. He also complained of swelling, drooping eyelids, loss of eye movement and double vision of the left eye first and on both eyes two days later. He was diagnosed to have a cavernous sinus thrombosis.
- 3.1. Describe the possible mechanism of developing cavernous sinus thrombosis in this patient. (40 marks)
- 3.2. Using your knowledge of anatomy, explain the
- 3.2.1. loss of sensations in the forehead and mid-facial regions. (10 marks)
- 3.2.2. swelling around the eyes. (10 marks)
- 3.2.3. drooping of eyelids. (10 marks)
- 3.2.4. loss of eye movements. (15 marks)
- 3.2.5. involvement of both eyes. (15 marks)
- 4.
- 4.1. Describe the bony structure of the lateral wall of the nasal cavity. (40 marks)
- 4.2. "Anastomoses between external and internal carotid arteries can be seen on the lateral wall of the nasal cavity". Explain this statement giving examples. (30 marks)
- 4.3.
- 4.3.1. List the structures that open into the lateral wall of the nasal cavity. (15 marks)
- 4.3.2. State the precise location of the opening of each structure mentioned in 4.3.1. (15 marks)

PART B (ORAL ANATOMY)

- 5.
- 5.1. State the mechanisms that help in the postnatal growth of the craniofacial complex of the following regions.
- 5.1.1. Cranial vault (30 marks)
- 5.1.2. Cranial base (10 marks)
- 5.1.3. Midface/Nasomaxillary complex (30 marks)
- 5.1.4. Mandible (10 marks)
- 5.2. List the factors that affect the postnatal growth of the cranial vault giving examples. (20 marks)
- 6.
- 6.1. Describe the histology of the vermillion zone of the lip. (40 marks)
- 6.2. State how 6.1. is different from the histology of the labial mucosa. (40 marks)
- 6.3. Outline the lymphatic drainage of the upper and lower lips. (20 marks)
- 7.
- 7.1. Describe the structure of the alveolar process. (40 marks)
- 7.2. List the cell types found in the alveolar bone and describe their functions. (30 marks)
- 7.3. List the causes for alveolar bone loss. (30 marks)
- 8.
- 8.1. Compare the repair mechanisms in the skin and teeth. (30 marks)
- 8.2. List the functions of the periodontal ligament. (30 marks)
- 8.3. List the molecular and cellular events associated with periodontal regeneration. (40 marks)

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**SELECTION EXAMINATION IN MD (ORAL & MAXILLOFACIAL SURGERY) - SEPTEMBER/OCTOBER 2017**

Date: 13<sup>th</sup> October 2017

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. List the three (03) phases in the regulation of gastric secretion.(15 marks)
  - 1.2. List the contents of gastric secretion in fasting state. (20 marks)
  - 1.3. Name the cells which contribute to gastric secretion indicating the secretions of each cell. (25 marks)
  - 1.4. Explain how pharmacological agents inhibit acid secretion in the stomach. (40 marks)
2.
  - 2.1. List the hormones secreted by the pituitary gland. (20 marks)
  - 2.2. Outline the effects of the growth hormone on growth. (50 marks)
  - 2.3. Outline the effects of anterior pituitary insufficiency. (30 marks)
3.
  - 3.1. Define nociceptive pain and neuropathic pain. (20 marks)
  - 3.2.
    - 3.2.1. List the pathways involved in transmission of pain signals to the sensory cortex. (10 marks)
    - 3.2.2. State the characteristics of pathways listed in 3.2.1 that are responsible for differences in perceived pain. (20 marks)
  - 3.3. Outline the descending analgesia system. (40 marks)
  - 3.4. List two (02) clinical applications that probably engage the descending analgesia system. (10 marks)

Contd..../2-

4. Outline the physiological basis of following.
- 4.1. Cushing reflex in head injury. (30 marks)
  - 4.2. Myxedema is non-pitting but right ventricular failure produces pitting edema. (40 marks)
  - 4.3. Recumbent position helps recovery from orthostatic hypotension but may worsen the symptoms in pregnant women. (30 marks)

### **PART B (PATHOLOGY)**

- 5.
- 5.1. Define the term 'Neoplasia'. (10 marks)
  - 5.2. How could you differentiate a benign neoplasm from that of a malignant neoplasm using
    - 5.2.1. clinical history (15 marks)
    - 5.2.2. clinical examination (15 marks)
    - 5.2.3. macroscopic features (15 marks)
    - 5.2.4. microscopic features (15 marks)
  - 5.3. Describe how a malignant neoplasm would spread. (30 marks)
- 6.
- 6.1. Define 'acute inflammation.' (10 marks)
  - 6.2. What are the changes in microvasculature during acute inflammation? (30 marks)
  - 6.3. List advantages and disadvantages of fluid exudate. (30 marks)
  - 6.4. Explain how the effects of acute inflammatory process would be unique to the dental pulp. (30 marks)

7. Describe the differences between following giving appropriate clinical examples
- 7.1. hyperplasia and hypertrophy. (20 marks)
  - 7.2. metastatic calcification and dystrophic calcification. (20 marks)
  - 7.3. immediate hypersensitivity and delayed hypersensitivity. (30 marks)
  - 7.4. sterilization and disinfection. (30 marks)
8. With regard to wound healing
- 8.1. describe main steps in primary healing. (40 marks)
  - 8.2. state how primary healing differs from secondary healing. (20 marks)
  - 8.3. list causes for delayed wound healing. (25 marks)
  - 8.4. list five (05) complications. (15 marks)