

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

SELECTION EXAMINATION IN MD (ORTHODONTICS) –
SEPTEMBER 2015

SAQ PAPER

Date :- 3rd September 2015

Time :- 9.00 a.m. – 11.00 a.m.

Answer all questions in Part A, B, C and D.
Answer each question in a separate book.

PART A

1.
 - 1.1. List the “growth sites” of the craniofacial complex. (20 marks)
 - 1.2. State the determinants of postnatal growth of the craniofacial complex. (30 marks)
 - 1.3. Describe the postnatal growth of the maxilla. (40 marks)
 - 1.4. List two (02) postnatal growth disturbances of the craniofacial complex. (10 marks)
2.
 - 2.1. Outline the nerve supply to the scalp. (20 marks)
 - 2.2. Explain the clinical significance of the layers of the scalp. (40 marks)
 - 2.3. State the communications of the pterygopalatine fossa indicating the openings and structures passing through. (40 marks)

Contd.../2-

PART B

3.

- 3.1. State what is meant by the term “tooth eruption”. (10 marks)
- 3.2. Describe the histological changes in the surrounding tissues during eruptive tooth movement of a permanent incisor tooth. (40 marks)
- 3.3. In a mandible of a 6 year old child
- 3.3.1. list the erupted teeth. (10 marks)
- 3.3.2. list the unerupted teeth seen in a radiograph. (20 marks)
- 3.3.3. state the age of eruption of teeth mentioned in 3.3.2. (20 marks)

4.

- 4.1. List five (05) differences between enamel of deciduous teeth and permanent teeth. (25 marks)
- 4.2. State the physical properties of enamel. (15 marks)
- 4.3. Explain how dentine can become sensitive to outside stimuli. (30 marks)
- 4.4. Explain with two (02) examples how knowledge about structural features of enamel is effectively utilized for clinical purposes. (30 marks)

Contd...../3-

PART C

- 5.
- 5.1. State the role of platelets in each step of haemostasis. (40 marks)
 - 5.2. List two (02) haemorrhagic diseases resulting from abnormalities in the extrinsic pathway of coagulation. (10 marks)
 - 5.3. Explain the physiological basis of the following observations
 - 5.3.1. "A patient with an acute infected wound feels pain when touching the intact skin surrounding the wound". (20 marks)
 - 5.3.2. "Polydipsia is observed in patients with uncontrolled diabetes mellitus". (30 marks)
- 6.
- 6.1. List the factors that affect cardiac output in a healthy adult. (30 marks)
 - 6.2. Explain the pathophysiology of the following
 - 6.2.1. Orthopnoea in left ventricular failure. (20 marks)
 - 6.2.2. Large 'a' wave in the venous pressure recording in congestive cardiac failure. (20 marks)
 - 6.3. List the changes in cardiovascular functions that occur in a trained athlete during exercise. (30 marks)

Contd...../4-

PART D

- 7.
- 7.1.
- 7.1.1. Describe the mode of action of "initiator" chemical carcinogens. (40 marks)
- 7.1.2. Give two (02) examples of chemical carcinogens that act as initiators. (10 marks)
- 7.2. Describe the morphological alterations in reversible cell injury. (50marks)
- 8.
- 8.1. Define "carrier state" in infectious diseases. (15 marks)
- 8.2.
- 8.2.1. State one (01) important carrier state relevant to dentistry. (10 marks)
- 8.2.2. State how you would investigate to confirm the carrier state mentioned in 8.2.1. (25 marks)
- 8.2.3. List the precautions you would take to protect yourself, your staff and patients when treating a patient with the carrier state mentioned in 8.2.1. (30 marks)
- 8.3. List two (02) other sites in the body with appropriate organisms, where a carrier state is known to occur. (20 marks)