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POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

SELECTION EXAMINATION IN MD (RESTORATIVE DENTISTRY)

10th December **OCTOBER 2020**

Date:- ~~6th October 2020~~

Time:- 9.00 a.m. – 11.00 a.m.

 invigilator **PAPER I**

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

PART A (GENERAL ANATOMY)

1.
 - 1.1. 'Epistaxis is relatively common in children with severe upper respiratory tract infections'.
Explain the anatomical basis of the above statement. (40 marks)
 - 1.2. Describe the clinical significance of mandibular nerve. (20 marks)
 - 1.3. Describe the involvement of tissue spaces in spread of infection from permanent maxillary teeth. (40 marks)
2.
 - 2.1. A 31-year-old male presented to the dental clinic with a painless, plum-shaped swelling in the anterior triangle of the neck inferior to the angle of the right mandible. On examination, it was found that the swelling was caused by a painless fluctuant cyst located anterior to the superior one third of the sternocleidomastoid muscle and was diagnosed as a branchial cyst.
 - 2.1.1. Explain the embryological basis of the branchial cyst. (10 marks)
 - 2.1.2. Describe the intra and extra cranial pathway of the cranial nerve that might be damaged during excision of the cyst indicating its branches and areas of innervation. (60 marks)
 - 2.2. Describe how muscles of the soft palate are arranged to perform the function (30 marks)
3.
 - 3.1. Describe the maxillary antrum and its relations. (40 marks)
 - 3.2. Describe the clinical significance of the maxillary antrum. (30 marks)
 - 3.3. List the other paranasal sinuses and outline their drainage. (30 marks)

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PART B (DENTAL ANATOMY)

- 4.
- 4.1. State what is meant by the term gingiva. (05 marks)
- 4.2. Describe how the attached gingiva is distinguished
- 4.2.1. microscopically (20 marks)
- 4.2.2. clinically (20 marks)
- from the alveolar mucosa.
- 4.3. State five (05) functions of attached gingiva. (25 marks)
- 4.4. Describe structural adaptations of attached gingiva. (20 marks)
- 4.5. State five (05) age changes of attached gingiva. (10 marks)
- 5.
- 5.1. Describe the involvement of ligaments in the stability of temporomandibular joint. (50 marks)
- 5.2. Describe the articular disc of the mandible with regard to the
- 5.2.1. structure (20 marks)
- 5.2.2. attachment (15 marks)
- 5.2.3. structural adaptations (15 marks)
- 6.
- 6.1. State five (05) different types of cells present in the periodontal ligament (PDL) and their significance in maintenance of periodontal health. (20 marks)
- 6.2. State the different types of PDL fiber groups and their role. (20 marks)
- 6.3. Describe why the periodontal tissue is considered as a 'specialized' type of connective tissue. (30 marks)
- 6.4. Describe the structural changes that occur during repair and regeneration of the periodontium. (30 marks)

POSTGRADUATE INSTITUTE OF MEDICINE
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DECEMBER 2020

Date :- 11th December 2020

Time:- 9.00 a.m. – 11.00 a.m.

PAPER II

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

PART A (PHYSIOLOGY)

1.
 - 1.1. Describe how blood is prevented from clotting within the vascular system. (50 marks)
 - 1.2. Outline how the following therapeutic agents act to reduce/prevent clotting:
 - 1.2.1. Warfarin (10 marks)
 - 1.2.2. Aspirin (15 marks)
 - 1.3. Describe how Disseminated Intra-vascular Coagulation (DIC) leads to increased bleeding tendency. (25 marks)
2.
 - 2.1. Describe the different mechanisms that control cardiac output. (50 marks)
 - 2.2. Describe how the blood flow to active muscles is increased during exercise. (50 marks)
3. Explain the physiological basis for the following:
 - 3.1. SGLT-2 inhibitors are used in the treatment of diabetes mellitus. (40 marks)
 - 3.2. Aldosterone antagonists are used as diuretics. (30 marks)
 - 3.3. Lignocaine is used as a local anaesthetic to relieve pain. (30 marks)

Contd.../2-

4.

- 4.1. Giving two (02) examples each, list the aetiological factors of thrombosis. (30 marks)
- 4.2. Explain the fate (sequelae) of intravascular thrombi. (40 marks)
- 4.3. Explain the clinical consequences of thrombosis. (30 marks)

5.

- 5.1. Describe the pathogenesis of granulomatous inflammation. (40 marks)
- 5.2. List five (05) different diseases presenting with histological evidence of granuloma formation. (10 marks)
- 5.3. Describe how you would arrive at a definitive diagnosis of the above diseases with clinicopathological correlation and other relevant investigations. (50 marks)

6.

- 6.1. Describe wound healing by primary intention. (30 marks)
- 6.2. State how healing by primary intention differs from healing by secondary intention. (30 marks)
- 6.3. List five (05) factors that would influence wound healing. (10 marks)
- 6.4. Explain complications of secondary wound healing. (30 marks)