POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

SELECTION EXAMINATION
MD (OPHTHALMOLOGY) FEBRUARY 2022

Date: 07th February 2022 **Time:** 1.00 p.m. – 4.00 p.m.

STRUCTURED ESSAY PAPER

Answer all questions in Parts A, B and C.
Answer **each question in a separate answer book.**

PART A (ANATOMY)

1.

1.1 Outline the boundaries of the carotid triangle. (20%)

1.2 Describe the contents of the carotid triangle. (50%)

1.3 State the clinical significance of the carotid triangle. (30%)

2.

2.1

2.1.1 Draw a labeled diagram of cross section of the pons. (30%)

2.1.2 Describe the course and distribution of the sixth cranial nerve with its clinical relevance. (40%)

2.2

2.2.1 List the structures at the cerebellopontine angle. (10%)

2.2.2 Briefly explain the clinical effects of cerebellopontine angle tumour. (20%)

Contd...../2-

PART B (PHYSIOLOGY)

3.

3.1 Describe the factors that affect oxygen delivery to tissues in a healthy adult at rest. (60%)

3.2 Outline how the oxygen delivery is affected in a patient with severe anaemia. (40%)

4.

4.1 A 35-year-old patient presents with fever, chills and rigors. His body temperature is 40° C with a respiratory rate of 20/min and pulse rate of 100 beats per minute.
Explain the physiological basis of his symptoms and signs mentioned above. (60%)

4.2 A 24-year-old man suffers an injury to his hand with significant bleeding. Describe the physiological basis of the haemostatic reactions to the injury. (40%)

PART C (PATHOLOGY)

5. Explain the pathological basis of the following scenarios.

5.1 A 25-year-old man with septic arthritis is febrile and his knee joint is red, swollen, warm and tender on examination. (35%)

5.2 A 75-year-old man develops a cerebral infarction five days after a transmural myocardial infarction. (35%)

5.3 Examination of the retina in 50-year-old man with diabetes mellitus reveals microaneurysms, haemorrhages, macular oedema and exudates, and abnormal new blood vessels. (30%)

Contd...../3-

6.

6.1 Chest x-ray of a 50-year-old man with pulmonary tuberculosis shows apical cavities. Explain the immuno-pathogenesis of this condition. (35%)

6.2 Briefly explain how special stains are used in the laboratory diagnosis of infectious diseases. (35%)

6.3 Explain the pharmacological basis of the action of amphotericin B. (30%)