

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%)

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This ensures transparency and allows for easy verification of the data.

In the second section, the author outlines the various methods used to collect and analyze the data. This includes both primary and secondary data collection techniques. The primary data was gathered through direct observation and interviews with key stakeholders. Secondary data was obtained from existing reports and databases.

The third section details the statistical analysis performed on the collected data. This involves the use of descriptive statistics to summarize the data and inferential statistics to test hypotheses. The results of these analyses are presented in a clear and concise manner, highlighting the key findings of the study.

Finally, the document concludes with a discussion of the implications of the findings and recommendations for future research. It suggests that further studies should be conducted to explore the long-term effects of the interventions and to identify additional areas for improvement.