

22/1/18 . 12pm

POSTGRADUATE INSTITUTE OF MEDICINE

UNIVERSITY OF COLOMBO

SELECTION EXAMINATION IN MD (OPHTHALMOLOGY) – JANUARY 2018

Date : 22 January 2018

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 Describe the origin, course and distribution of the maxillary artery. (60%)

1.2 Describe the scalenus anterior muscle and its relations. (40%)

2.

2.1 Describe the Anatomy of the Dural layers of the cranial cavity including its relations. (70%)

2.2 Briefly describe its clinical relevance (30%)

Contd.../2-

PART B (PHYSIOLOGY)

3. A man after aspirating a foreign body presents to the medical casualty with shortness of breath. He developed a bout of cough and breathlessness. His respiratory rate on admission was 28 breaths/ min. His chest X Ray showed a right upper lobe collapse.

His arterial blood gas analysis was as follows,

pH	- 7.4
pO ₂	- 60 mmHg
pCO ₂	- 35 mmHg
HCO ₃ ⁻	- 24 mmol/L

3.1 Explain the physiological basis for

- a) PaO₂ of 60 mmHg (20%)
- b) Respiratory rate of 28/min (40%)
- c) PaCO₂ of 35 mmHg (20%)

3.2 Explain the ventilation perfusion ratio (V/Q ratio) of this patient. (20%)

4.

4.1 Describe the role of hypothalamus in regulation of body water in dehydration. (60%)

4.2 Explain the physiological basis of relief of pain when rubbing around a painful area. (40%)

PART C (PATHOLOGY)

5.

5.1 Discuss the factors which influence the development of an infarct in an organ or a tissue (30%)

5.2 Explain the pathological basis of red and pale infarcts giving examples (40%)

5.3 Give an account of the types of necrosis seen in organs or tissues following infarction, giving examples (30%)

6. Write short notes on

6.1 The microbiome (30%)

6.2 Immune Evasion by microbes (40%)

6.3 Mechanisms of action of Cyclosporines (30%)