

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

POSTGRADUATE DIPLOMA IN MEDICAL PHYSIOLOGY
SECTION III EXAMINATION – JUNE 2018 (REPEAT)

STRUCTURED ESSAY QUESTION (SEQ) PAPER

Date : 23 June 2018

Time: 10.45 a.m. – 11.45 a.m.

CARDIOVASCULAR PHYSIOLOGY

Answer **all three (03)** questions.

Answer each question in a separate book

1.

1.1 Explain with an aid of a diagram, the pressure changes in the left ventricle during a cardiac cycle (35 marks)

1.2 A 50 year old male with a history of hypertension was admitted to the hospital with difficulty in breathing. On examination he had elevated Jugular venous pressure (JVP). His blood pressure was 100/90 mmHg. He was diagnosed to have congestive cardiac failure.

Explain the physiological basis of

(a) elevated JVP (30 marks)

(b) blood pressure of 100/90 mmHg (35 marks)

2. A patient who had an accidental cut injury to his hand was brought to the hospital about 30 minutes after the incident. He has lost about 750 mL of blood. He was found to have pulse rate of 130 beats per minute, blood pressure of 80/60 mmHg. His skin was cold and sweaty. He was diagnosed as going into a state of haemorrhagic shock.

Explain the physiological basis for the following in this patient

(a) the pulse rate of 130 beats per minute (30 marks)

(b) blood pressure of 80/60 mmHg . (40 marks)

(c) skin being cold and sweaty. (30 marks)

3.

- 3.1 What is hypertension? (10 marks)
- 3.2 What are the cut off values for diagnosing hypertension? (10 marks)
- 3.3 Write **four (04)** causes for secondary hypertension. (20 marks)
- 3.4 Take one of the causes written above and explain how hypertension is developed due to that cause. (20 marks)
- 3.5 Write **four (04)** complications of untreated hypertension. (20 marks)
- 3.6 Explain why it is important to use a correct size cuff when measuring blood pressure. (20 marks)

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STRUCTURED ESSAY QUESTION (SEQ) PAPER

Date : 23 June 2018

Time: 12.30 p.m. – 1.30 p.m.

NEUROPHYSIOLOGY II

Answer **all three (03)** questions.

Answer each question in a separate book

1.

1.1 The light response can be lost while the response to accommodation remains intact. Explain the physiological basis. (60 marks)

1.2 A 15 year old boy complained of difficulty in reading the black board in the class room.

(a) What is the visual abnormality that may lead to above presentation? (10marks)

(b) Explain the physiological basis of the abnormality given above using clearly labeled diagram. (30 marks)

2. Explain the physiological basis of the following

2.1 Dysarthria in cerebellar lesions. (40 marks)

2.2 Aphasia following left middle cerebral artery occlusion (60 marks)

3. Write short notes

3.1 Alzheimer's disease. (40 marks)

3.2 Evoked potentials. (30 marks)

3.3 Rinne's test. (30 marks)