

**POSTGRADUATE INSTITUTE OF MEDICINE**  
**UNIVERSITY OF COLOMBO**

**MD (ANAESTHESIOLOGY) PART I A EXAMINATION – AUGUST 2020**

**ESSAY PAPER**

**Answer six (06) questions only.**

**Each question should be answered in a separate book.**

**Date:** 7<sup>th</sup> August 2020

**Time:** 9.00 a.m. – 12.00 noon

1.
  - 1.1. Draw and label the Mapelson A breathing system (Magills attachment). (30 marks)
  - 1.2. Outline the functions of each component. (40 marks)
  - 1.3. List the advantages and limitations of this system. (30 marks)
  
2. Write short notes on the following.
  - 2.1. Advantages and disadvantages of propofol. (40 marks)
  - 2.2. Clinical disadvantages of nitrous oxide. (30 marks)
  - 2.3. Uses and side effects of salbutamol. (30 marks)
  
3. A 38-year old primigravida with a POA of 34 weeks presented with right upper abdominal pain and a blood pressure of 180/110mmHg. Urine albumin is +++.
  - 3.1. What is your clinical diagnosis? (10 marks)
  - 3.2. What additional information in the history, clinical examination and the investigations will support your diagnosis? (45 marks)
  - 3.3. She is scheduled to undergo an urgent LSCS. Outline the optimization of this patient. (45 marks)

4. A 35-year old male patient is brought to A&E following an assault. On admission his GCS is 7/15. His vital parameters are stable. He is diagnosed with an isolated head injury.
- 4.1. Outline the initial management of this patient. (40 marks)
  - 4.2. How would you prevent secondary brain injury? (30 marks)
  - 4.3. How will you prepare this patient for transfer to a neurosurgical center? (30 marks)
5. A 6-year old healthy child is admitted to the casualty ward with testicular torsion. He had his meal one hour ago.
- 5.1. What are the anaesthetic challenges in the management of this patient? (35 marks)
  - 5.2. Outline the intraoperative management of this patient. (45 marks)
  - 5.3. List the options available for management of postoperative pain in this Patient. (20 marks)
6. A 60-year old lady with hypertension is scheduled to undergo a total abdominal hysterectomy with bilateral salphingo-oophorectomy (TAH and BSO).
- 6.1. What factors can increase blood pressure during the intraoperative period? (30 marks)
  - 6.2. What measures can be taken to avoid intraoperative hypertension? (40 marks)
  - 6.3. List the perioperative complications that may occur with untreated hypertension. (30 marks)

7. A 20-year old patient is anaesthetized for an emergency appendicectomy. During surgery, you notice unexplained tachycardia with increasing end-tidal carbon dioxide, despite adequate ventilation. You suspect malignant hyperthermia (MH).
- 7.1. What are the potential triggers for MH? (20 marks)
  - 7.2. Outline the initial management of this patient. (45 marks)
  - 7.3. What are the complications of MH? (35 marks)
- 8.
- 8.1. List five (5) surgical procedures performed in the prone position. (20 marks)
  - 8.2. Outline the problems encountered in the prone position. (40 marks)
  - 8.3. What precautions would you take to minimize problems in the prone position? (40 marks)