

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MD (ANAESTHESIOLOGY) FINAL EXAMINATION – OCTOBER 2021

Date: 16th October 2021

Time: 9.30 a.m. – 12.30 p.m.

LONG ESSAY QUESTIONS

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

Answer each question **in a separate book**.

1. A 72-year-old male, ASA I patient was admitted to the ICU after extubation following prolonged major abdominal surgery. On the following day, his oxygen saturation dropped to 92% while on 15L/min of oxygen via non-rebreathing mask. His RR was 30/min, air entry was diminished in the lung bases, PaO₂ - 70mmHg. He was haemodynamically stable.

A decision was taken to use High Flow Nasal Oxygen Therapy (HFNOT) to improve his oxygenation.

- 1.1. Briefly explain mechanisms involved in postoperative pulmonary complications in this patient. (25%)
- 1.2. Justify the application of HFNOT for this patient. (20%)
- 1.3. What are the limitations of HFNOT? (15%)

After 2 hours of HFNOT, he showed signs of exhaustion.

He was intubated and ventilated for 5 days after which his respiratory parameters started to improve.

- 1.4. Enumerate the oxygen indices that can be used to monitor improvement of his oxygenation? (10%)
- 1.5. Outline the preconditions and criteria to be assessed for weaning him from mechanical ventilation. (30%)

Contd...../2-

2. A 70 year old male with peripheral vascular disease (PVD) presented to the casualty surgical unit with a pulseless right lower limb. A diagnosis of acute limb ischaemia was made.
- 2.1. List the surgical interventions this patient may require. (10%)
- 2.2. What are the preoperative and intraoperative concerns? (30%)
- 2.3. Briefly describe your strategies to overcome the concerns mentioned in 2.2. (30%)
- 2.4. He developed high fever on the 3rd postoperative day. His heart rate was 130/min, BP 80/40mmHg and RR 35/min.
- 2.4.1. What is the most likely diagnosis? (5%)
- 2.4.2. What is your management in the first twenty-four hours? (20%)
- 2.5. List the other possible postoperative complications. (5%)
- 3.
- 3.1. What is Placental Adhesive Spectrum disorder (PAS)? How is it classified? (10%)
- 3.2. How do you assess a patient with PAS disorder preoperatively? (15%)
- 3.3. Outline the management plan for a patient with PAS presenting for a Caesarean section. (30%)
- 3.4. What special precautions will be taken in the operating theatre before commencing anaesthesia? (15%)
- 3.5. Discuss the anaesthetic options available. (30%)

Contd...../3-

4. A 35-year-old female, diagnosed with an ovarian malignancy is scheduled for laparotomy for pelvic clearance. She gives a history of a renal transplantation six years ago. She was referred to you two weeks prior to surgery.

4.1. Outline the preoperative concerns. (30%)

4.2. List the investigations you would request giving reasons. (20%)

4.3. How would you prepare her for surgery? (25%)

4.4. What are your specific concerns during the intra operative period and how would you overcome those? (25%)