

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

CERTIFICATE OF COMPETENCE IN ANAESTHESIOLOGY
EXAMINATION - JULY 2025

Date:- 15th July 2025

Time:- 9.30 a.m. - 11.30 a.m.

Answer **all eight (08)** questions.

Each question should be answered in a separate book.

1.
 - 1.1. List five (05) indications for ultrasound scanning in perioperative period. (40 marks)
 - 1.2. List five (05) advantages of ultrasound scanning in perioperative care. (30 marks)
 - 1.3. What are the other available imaging techniques which are useful during perioperative care? (30 marks)
2. A 40-year-old ASA-1 patient underwent a laparotomy for bowel obstruction and during the recovery noted to have high blood pressure (190/100 mmHg).
 - 2.1. What are the possible causes of his high blood pressure? (20 marks)
 - 2.2. List five (05) complications associated with increased blood pressure. (40 marks)
 - 2.3. Outline the options available to control his post operative pain. (40 marks)
3. What are the indications, doses and side effects of the following drugs:
 - 3.1. Fentanyl (40 marks)
 - 3.2. Ketamine (30 marks)
 - 3.3. Magnesium Sulphate (30 marks)

Contd..../2-

4. A 32-year-old previously healthy woman in her POA of 35 weeks was admitted with a blood pressure of 180/115 mmHg. She complains of headache and visual disturbances.

4.1. What is the most likely diagnosis? (10 marks)

4.2. Mention five (05) other clinical findings which support the diagnosis. (30 marks)

4.3. Write two (02) major complications which cause mortality in this situation. (20 marks)

4.4. Outline your pre-operative management of this patient if she comes for lower segment Caesarean section. (40 marks)

5. A 2-year-old, 15 kg child presents for an emergency surgery due to an obstructed right inguinal hernia.

5.1. What are the preoperative concerns? (30 marks)

5.2. Outline your anaesthetic plan for this child. (40 marks)

5.3. What is your plan for intraoperative pain management for this patient, including dosages? (30 marks)

6. A 28-year-old ASA-1 male patient was admitted to Accident and Emergency (A&E) Department following a road traffic accident. He is anxious and restless.

His clinical parameters are as follows:

GCS	15/15
Heart rate	110 beats/minute
Blood pressure	80/50 mmHg
Respiratory rate	24/minute
SpO ₂ on room air	92%

6.1. List five (05) possible life threatening injuries in this patient. (30 marks)

6.2. What are the initial investigations you order for this patient? (25 marks)

6.3. How would you stabilize this patient initially at the A&E? (45 marks)

7.

- 7.1. What are the indications of non-invasive ventilation? (40 marks)
- 7.2. Mention four (04) contraindications for non-invasive ventilation. (20 marks)
- 7.3. What are the modes of non-invasive ventilation? (20 marks)
- 7.4. How do you assess the effectiveness of non-invasive ventilation? (20 marks)

8. A 45-year-old previously healthy man was anaesthetised for laparoscopic cholecystectomy. After 5 minutes of induction, his heart rate increased to 140 beats/minute, blood pressure reduced to 70/40 mmHg and developed an urticarial rash.

- 8.1. What is the most likely diagnosis? (10 marks)
- 8.2. List the other clinical features seen in this patient. (25 marks)
- 8.3. What is your immediate management? (35 marks)
- 8.4. Enumerate the instructions to be given to the patient on discharge. (20 marks)