

Master Copy

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

CERTIFICATE OF COMPETENCE IN ANAESTHESIOLOGY
EXAMINATION – JUNE 2023

Date :- 2nd June 2023

Time:- 9.30 a.m. – 11.30 a.m.

ESSAY PAPER

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

Each question to be answered in a separate book.

1. List the safety features of the following:
 - 1.1. Oxygen pipeline supply (30 marks)
 - 1.2. Flow meter (Rota meter) (40 marks)
 - 1.3. Vaporiser (30 marks)

2. A 23 year old primi with a POA of 36 weeks is admitted for normal vaginal delivery. She has requested a labour epidural.
 - 2.1. How would you prepare this patient for the epidural? (40 marks)
 - 2.2. List three (03) other pharmacological options available for labour analgesia. (15 marks)
 - 2.3. Mention two (02) disadvantages of each option listed in 2.2. (15 marks)
 - 2.4. There is sudden deceleration of foetal heart rate and needs an emergency caesarean section.
What are the options available for anaesthesia and give reasons for your choice? (30 marks)

3. A 25 year old ASA-1 patient was brought to the Accident & Emergency Department following a road traffic accident with an isolated head injury. His GCS was 7/15.
 - 3.1. Explain what primary brain injury is? (20 marks)
 - 3.2. What are the immediate measures that should be taken to prevent secondary brain damage? (45marks)
 - 3.3. Four hours after the incident, the ICU nursing officer informs you about the rising values of intra cranial pressure (ICP) up to 25 mmHg.
 - 3.3.1. What is the normal range of ICP? (05 marks)
 - 3.3.2. List the steps which should be taken immediately. (30 marks)

- 4.
- 4.1. Write three (03) intra venous drugs and their doses you may use as alternatives to propofol for induction of anaesthesia for adults. (20 marks)
- 4.2. List the advantages of each. (40 marks)
- 4.3. List the disadvantages of each. (40 marks)
5. A 50 year old man with diabetes mellitus is admitted with suspected pyelonephritis. He is febrile, conscious and rational, heart rate is 120 beats/minute, blood pressure 85/55 mmHg and respiratory rate is 30/minute. Rest of the examination is unremarkable.
- 5.1. What is your initial fluid management? (25 marks)
- 5.2. How would you check the fluid responsiveness of this patient? (20 marks)
- 5.3. What other steps would you take in his management? (40 marks)
- 5.4. What are your targets for (15 marks)
- 5.4.1. mean arterial pressure.
- 5.4.2. urine output.
- 5.4.3. serum lactate.
6. A 35 year old woman, is scheduled for a thyroidectomy for a possible malignancy. She complains of recent enlargement of her goiter.
- 6.1. List the main preoperative problems. (25 marks)
- 6.2. What specific investigations would you require to assess this patient giving reasons? (25 marks)
- 6.3. If she had a history of hyperthyroidism, what specific medications could she be on? (15 marks)
- 6.4. She develops stridor in the recovery. How would you manage this patient? (35 marks)

7. A 70 year old man was admitted to the surgical casualty ward complaining of abdominal pain and distension. The surgeon plans for an emergency laparotomy.
- 7.1. List the risk factors for pulmonary aspiration in this patient. (30 marks)
- 7.2. What pre-operative instructions would you give to the ward staff, to minimise pulmonary aspiration? (30 marks)
- 7.3. The patient suddenly desaturates during induction and there are gastric contents in the pharynx.
How would you manage this patient? (40 marks)
8. A 5 year old, 20kg child is awaiting an urgent laparotomy for intestinal obstruction.
- 8.1. List the perioperative problems. (40 marks)
- 8.2. How do you optimize this child prior to anaesthesia? (30 marks)
- 8.3. What is your perioperative pain management? (30 marks)