The Hong Kong College of Anaesthesiologists

Final Fellowship Examinations

Paper I – Clinical Scenarios & SAQs

10 August 2026 (Monday)

09:00 – 11:00 hours

Instructions:

a. There are twelve pre-labelled answer books. Please make sure you answer the questions in the respective answer books.

b. Write your candidate number on the cover of each answer book.

c. Use ink or ball-point pen.

d. There are 12 questions in this paper. Answer **ALL** questions. They are worth equal marks and you should spend approximately **ten minutes** for each question. For questions with multiple parts, allocation of marks is indicated in the brackets.

e. Questions 1-3 are related to Scenario A, Questions 4-6 are related to Scenario B, Questions 7-12 are standalone short answer questions.

Scenario A

A 17-year-old boy weighing 50 kg with a BMI of 17 kg/m² presents with an ongoing cough and orthopnoea for the past month. A chest radiograph (CXR) reveals a large anterior mediastinal mass. You are the supervising anaesthetist for an elective CT-guided Tru-cut biopsy in the radiology department next Tuesday.

1) **Outline your pre-procedural assessment for this patient.**

2) **State the key principles of your chosen anaesthetic technique for this patient and your considerations regarding tracheal intubation.**

3) **While you are preparing for the anaesthesia in the CT suite, the patient suddenly develops a persistent cough and becomes highly restless and agitated. You uncover that your anaesthetic resident has just administered a 3mg IV bolus of midazolam to keep the patient still prior to the acute deterioration.**

   i) **Classify and justify your differential diagnoses for this acute deterioration.**
   ii) **Outline your immediate management in the CT suite.**

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Scenario B

A 30-year-old male professional jockey (60kg) suffered from a high-velocity fall from a horse during a race. He was retrieved by the medical team of Jockey club to the A&E department of a tertiary hospital. The mechanism of injury was not clear due to high velocity.

The patient is conscious (GCS 15) but anxious. He could not move his legs and had severe burning pain in his arms. Physical examination revealed motor strength 0/5 in lower limbs and 2/5 in upper limbs. A rigid neck collar is in place. No other obvious external wounds could be found.

Whole body CT found unstable burst fracture of C4/5 with retropulsion of fragments. Neurosurgeons scheduled an emergency anterior cervical diskectomy and fusion (ACDF).

Vitals: BP 82/45 mmHg, HR 54 (sinus), SaO2 94% on 4L Hudson mask, RR 24

4) **What is the likely cause of hypotension? Briefly explain your answer (10%). Outline your plan of induction and intubation (50%). Discuss your choice(s) of induction agents, taking into account the subsequent use of intraoperative electrophysiological monitoring (40%).**

5) **The surgeon requested motor evoked potential (MEP) and somatosensory evoked potential (SSEP) monitoring for this surgery. Justify your anaesthetic maintenance to optimize these signals (30%). Suddenly, during the distraction of the vertebral bodies, the MEP signals in the left upper extremity drop by 60%. Outline your immediate management plan.**

6) **The surgery goes well. The patient is extubated and transferred to ICU. Two hours later, you are called by ICU for assistance because the patient is agitated, and has developed stridor. List your differential diagnoses (30%)? Outline your immediate plan of management (70%)?**

Go to page 4 for Questions 7-12

Short Answer Questions

7) A 30-year-old man is brought to the emergency department with 35% Total Body Surface Area (TBSA) burns involving his face and chest following a domestic gas cylinder explosion.

i) State the top 3 pathophysiological rationales that dictate your initial burns resuscitation. (30%)

ii) Outline your stabilization priorities for this patient. (70%)

8) A 45-year-old man with a history of severe opioid tolerance presents with right-sided 6th to 10th rib fractures following a fall. Describe your multimodal analgesic strategy, including your choice of regional anaesthetic technique, tailored to the anatomical location of his fractures and clinical status.

9) Describe the intraoperative strategies to improve the success rate of free flap surgery.

10) You have been called to see a 5-year-old girl (with body weight of 20 kg) who had a tonsillectomy six hours previously. She is bleeding and needs to go back to theatre for emergency haemostasis. Outline your perioperative management.

11) A 50-year-old man is scheduled for an elective ERCP (endoscopic retrograde cholangiopancreatography) under anaesthesia in the endoscopy suite tomorrow.

i) What are the anaesthetic considerations? (60%)

ii) Discuss the factors affecting the decision in choosing between Monitored Anaesthetic Care (MAC) and General Anaesthesia (GA). (40%)

12) Outline the perioperative management of a 20-year-old man, with a diagnosis of idiopathic pulmonary arterial hypertension, undergoing emergency laparoscopic appendicectomy for ruptured acute appendicitis.

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