



**The Hong Kong College of Anaesthesiologists**  
**Final Fellowship Examinations**  
**Paper I – Clinical Scenario (1 - 6) & SAQ (7 - 12)**  
**9 September 2019 (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**

**You see a patient the day before for bilateral total knee replacement (TKR) surgery who has haemoglobin A1c (HbA1c) of 12%.**

1. Outline the problems associated with poor perioperative glycaemic control. Would you postpone this operation?
2. Describe your perioperative management of this patient with type 2 diabetes mellitus (DM) with a blood sugar level of 11 mmol/L on the morning of admission for surgery.
3. You have been asked to investigate how well your department manages diabetes perioperatively. What is a clinical audit? Describe the processes you would follow to set up and run an audit of diabetic management.

**Go to page 2 for Scenario B  
Questions 4-6**

## **Scenario B**

**A 33-week primigravida women is in labour. She has Graves' disease, small goitre taking carbimazole. She is stable and clinically euthyroid.**

4. Elaborate the physiological changes of thyroid associated with pregnancy (20%) and the principles in management of Graves' disease in pregnancy (80%).
5. She requests for epidural analgesia. Describe your assessment (30%), initiation and maintenance (40%) of epidural and special concerns with regard to her thyroid disease (30%).
6. She had a normal vaginal birth with 1500 ml blood lost already. Obstetricians booked for emergency exploration under anaesthesia. What are the causes of primary postpartum haemorrhage (10%) and your anaesthetic management (90%)?



**Go to page 3 for  
Questions 7-12**

### Short Answer Questions

7. A 65-year-old male patient needs an open reduction and internal fixation for a lower limb fracture on your trauma list later today. He has end-stage liver disease. Discuss the physiological and pharmacological issues that are relevant in providing anaesthesia to this patient.
8. 75-year-old man presents for microlaryngoscopy and removal of vocal cord tumour which is scheduled to last for 90 minutes. Describe the options for airway management, with advantages and disadvantages of each.
9. What is “low flow anaesthesia”? Outline the advantages and disadvantages of low flow anaesthesia.
10. Discuss the current concepts of perioperative fluid management for major elective abdominal surgery.
11. In minor upper limb procedures, describe the advantages and disadvantages of the Bier’s block (intravenous regional anaesthesia) (50%). What are the mechanisms of action of the Bier’s block (25%)? Your vascular surgeon wants to do endovascular angioplasty of an occluded arterio-venous graft, justify whether it is plausible to perform the procedure with a Bier’s block (25%).
12. Discuss on the aim of analgesia (25%) and possible postoperative pain management modalities (75%) after a thoracotomy.

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