

Paper I

There are twelve questions in this paper to be completed in 150 minutes
Answer **ALL** questions.

They are worth equal marks and you should spend approximately **twelve minutes** for each question.

For questions with multiple parts, allocation of marks is indicated in the brackets.

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 6-year-old boy (body weight 20 kg) with spastic cerebral palsy is scheduled for bilateral femoral osteotomy.

- 1. What are the anaesthetic concerns associated with cerebral palsy?**

- 2. Discuss the challenges of postoperative pain relief in this patient (40%) and the analgesic options available for this surgery (60%).**

- 3. The operation was completed in 5 hours. It was uneventful and the blood loss was 200ml. The patient was reversed from anaesthesia. Upon arrival to recovery room, he appeared to be agitated and attempted to pull out iv drip and remove dressing.**
 - i. Outline your management. (50%)**
 - ii. List the strategies that prevent emergence delirium in children. (50%)**

Scenario B

A 38-week healthy primigravida with 3cm cervical dilatation requests epidural analgesia.

- 4. Explain the maternal peripartum physiological changes during a normal labour.**

- 5. 30 minutes after epidural analgesia has been established, the midwife noted a drop in fetal heart rate to 80 bpm. Both you and the obstetrician were informed. What are the causes of drop in fetal heart rate? (20%) Discuss your management while awaiting obstetrician's assessment. (80%)**

- 6. List the steps in neonatal resuscitation.**

- 7. Highlight the differences in anaesthetic management of intraoperative intracranial aneurysmal rupture before and after dural opening.**
- 8. Discuss the incidence (10%), significance (40%) and preventive measures (50%) for wrong-site nerve blocks.**
- 9. A 30-year-old woman with biopsy-proven muscular dystrophy (clinically limb-girdle type) presents for laparoscopic myomectomy due to uterine fibroids causing heavy menorrhagia. She has no breathing difficulties and her muscle power is near normal except for slight difficulty getting up from squatting at the end of the day. She had uneventful general anaesthesia three months earlier for hysteroscopy.**

Describe your preoperative preparation (50%) and main points in the conduct of anaesthesia (50%) for this patient.

- 10. You are called to assist intubation at the emergency room for a 20-year-old victim of a road traffic accident because of a decrease in the Glasgow Coma Scale and desaturation. He is suffering from isolated head injury, fracture maxilla and suspected cervical spine injury. Discuss the pros and cons of using the video laryngoscope in the airway management for this patient.**
- 11. A 40-year-old man presents to the emergency department due to epigastric pain. He suffers from perforated peptic ulcer. He is 50kg and is taking methadone 100mg daily for his substance abuse disorder. He is planned to have an open patch repair. What is your postoperative pain management?**
- 12. A 12-year-old boy with tuberous sclerosis is scheduled to have an MRI brain next week, since he needs a higher dose of anti-epileptics to control his seizure. He is autistic, with learning difficulty. No other systems are involved except some skin patches. You are asked to provide anaesthetic support.**

What are the considerations in providing anaesthetic support in MRI suite for this boy?