Instructions:

a. There are three pre-labelled answer books. Please make sure you answer the respective questions in the appropriate answer book.
b. Write your examination number on the cover of each answer book.
c. Answer ALL questions (nine questions). They are worth equal marks and you should spend approximately ten minutes for each question.

Scenario A

A healthy two year-old boy is to have a hypospadias repair as a day stay in a paediatric hospital.

1. What would be your indications for the use of sedative premedication in this child? What are the possible DISADVANTAGES of the use of sedative premedication in this child?

2. Describe the anatomy relevant to the safe performance of a caudal block for post-operative analgesia in this child.

3. Three minutes after performance of a caudal block using 8 ml of 0.25% bupivacaine, the pulse oximeter stops reading and the ECG shows ventricular fibrillation. Outline your management.

Scenario B

A 30 year-old primigravida requires emergency Caesarean section for suspected foetal distress after prolonged labour despite oxytocin augmentation. She is otherwise healthy and pregnancy is uneventful. She prefers general anaesthesia.

4. Discuss the perioperative anaesthetic management of this patient with foetal distress.

5. Discuss the risks of awareness under general anaesthesia in this patient and your perioperative anaesthetic management to decrease awareness.

6. The mother would like to breast feed the newborn. Discuss the use of patient-controlled analgesia with intravenous opioids for postoperative analgesia under the circumstances.
Scenario C

An 80-year-old male with cataract is scheduled for elective phacoemulsification and intraocular lens implantation. He is otherwise healthy, but his last operation for total knee replacement two years ago under general anaesthesia was complicated by postoperative confusion, becoming more forgetful with difficulty in concentrating. A neurologist diagnosed him to have suffered from “postoperative cognitive dysfunction” and advised him to avoid general anaesthesia in the future.

7. Discuss the pros and cons of general anaesthesia vs. regional anaesthesia for cataract surgery in this patient with a history of postoperative cognitive dysfunction after general anaesthesia.

8. He prefers the surgery to be done under regional anaesthesia. Compare and contrast peribulbar block with topical anaesthesia for cataract surgery.

9. Just before the commencement of surgery, the patient becomes very anxious and the surgeon requests you to provide sedation. Describe how you would provide sedation for this patient.

-END-