

**DIPLOMA OF FELLOW OF THE ROYAL COLLEGE OF ANAESTHETISTS
FINAL EXAMINATION**

Tuesday 3rd September 2013

9:30 am to 12:30 pm

Candidates MUST answer all 12 questions. Candidates will fail the written section if one or more questions on the SAQ paper are not attempted.

All 12 questions carry equal marks, although their pass marks may vary. Questions are printed in the appropriate coloured book:

1 & 2 in Book A (Blue)	5 & 6 in Book C (Green)	9 & 10 in Book E (Orange)
3 & 4 in Book B (Pink)	7 & 8 in Book D (Yellow)	11 & 12 in Book F (Grey)

One question will be printed on the first page and the second question will be printed half-way through the book. Candidates must write their answer underneath the question in each of their six books. Questions answered in the wrong book will not normally be marked (and the candidate will fail the written section). Please write clearly e.g. a, b, c etc. for which section of the question you are answering.

Where examiners have indicated the way marks are allocated, candidates are advised to spend their time accordingly.

Question 1 (Blue Book)

You are asked to anaesthetise a 75-year-old man for an urgent DC cardioversion on the Coronary Care Unit (CCU). He has a broad complex tachycardia of 150 beats/minute, but is maintaining a systolic blood pressure of 70 mmHg and has a Glasgow Coma Score of 13/15.

- a) List the advantages and disadvantages of providing anaesthesia in the CCU. (30%)
- b) What factors must be taken into consideration when choosing an anaesthetic technique for this patient? (30%)
- c) What complications may occur as a consequence of the procedure? (40%)

Question 2 (Blue Book)

A primiparous patient with a booking BMI of 55 kg/m² presents in the high-risk obstetric anaesthetic assessment clinic at 32-weeks gestation. She is hoping for a vaginal delivery.

- a) Which specific points do you need to elicit from the history and examination? (30%)
- b) What do you need to communicate to the patient? (35%)
- c) Document your plan for her management on the delivery suite. (35%)

Question 3 (Pink Book)

A 45-year-old man is scheduled for a laparoscopic Nissen fundoplication under general anaesthesia. He is graded ASA 1.

- a) Describe how laparoscopy can cause adverse effects in this patient. (70%)
- b) How may these effects be minimised? (30%)

Question 4 (Pink Book)

a) What factors predispose to inadvertent intra-arterial (IA) drug injection that could lead to severe extremity injury? (35%)

- b) Outline the possible intravascular mechanisms of injury. (15%)
- c) What are the acute clinical features of inadvertent IA injection? (20%)
- d) What is the early management of an acute IA injection injury? (30%)

Question 5 (Green Book)

A 74-year-old patient is scheduled for a primary total hip replacement.

- a) What are the potential benefits of an enhanced recovery ("fast-track") programme for this type of surgery? (20%)
- b) List the preoperative (30%), intra-operative (35%) and postoperative (15%) factors necessary for a "fast track" programme in this patient.

Question 6 (Green Book)

a) List the normal anatomical features of young children (< 3 years old) which may adversely affect upper airway management. (35%)

- b) Which airway problems may occur due to these anatomical features? (30%)
- c) Outline how these problems are overcome in clinical practice. (35%)

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Question 7 (Yellow Book)

You are asked to review a 65-year-old man on the Cardiac Intensive Care Unit who underwent coronary artery bypass surgery earlier in the day.

- a) Which clinical signs suggest the development of acute cardiac tamponade? (40%)
- b) List the investigations and their associated derangements that could confirm the diagnosis of acute cardiac tamponade. (15%)
- c) What is the management of acute cardiac tamponade in this patient? (45%)

Question 8 (Yellow Book)

- a) What are the indications for arterial cannulation? (35%)
- b) How may an invasive arterial pressure measuring system be calibrated? (20%)
- c) Outline the sources of error when measuring invasive arterial pressure. (45%)

Question 9 (Orange Book)

- a) What are the indications for renal replacement therapy (RRT) in the Intensive Care setting? (40%)
- b) List the types of RRT available on Intensive Care. (30%)
- c) Outline the principle mechanisms of solute and water removal by RRT. (30%)

Question 10 (Orange Book)

76-year-old man is scheduled for elective cataract surgery under local anaesthesia.

- a) Summarise the goals of local anaesthesia (LA) for this procedure. (15%)
- b) Which LA techniques may be used for cataract surgery? (20%)
- c) List the contraindications to the use of LA as the sole technique for the procedure. (25%)
- d) Which details specific to an LA block should be documented in the anaesthetic record? (40%)

Question 11 (Grey Book)

A 34-year-old man is scheduled for a posterior fossa tumour excision.

- a) List patient positions that might be employed for this operation. (10%)
- b) What potential intraoperative problems are associated with posterior fossa craniotomy? (25%)
- c) What monitoring techniques can specifically detect the presence of venous air embolism during surgery and for each method used, give the features that would indicate the diagnosis? (40%)
- d) How would you manage a significant venous air embolism in this patient? (25%)

Question 12 (Grey Book)

- a) What are the complications of continuous epidural analgesia (CEA) in the ward setting? (40%)
- b) How should patients be monitored throughout the period of CEA? (25%)
- c) Outline the safety features that relate to equipment used for CEA. (35%)