



The Hong Kong College of Anaesthesiologists
Intermediate Fellowship Examination
Written Paper in Pharmacology
Friday, 14 July 2017, 14:00 - 16:00

The questions carry equal marks. Answer **ALL** questions **by using ink or ball-point pen**. For questions with multiple parts, allocation of marks is indicated in the brackets.

1. Describe the possible clinical applications (75%) and draw-backs (25%) of single-dose administration of dexamethasone in the perioperative period?
2. Compare and contrast the pharmacology of tramadol and paracetamol used in the perioperative period.
3. Draw the washout curves of sevoflurane after 2 hours of administration from a morbidly obese patient and a patient with normal weight. (25%) Briefly discuss the factors affecting the washout of sevoflurane in these patients. (75%)
4. What is blinding in a clinical trial? (30%) List the different types of blinding (30%) and discuss the benefits of blinding in clinical trial. (40%)
5. Compare and contrast the pharmacology of low-molecular-weight and unfractionated heparin.
6. Describe the pharmacodynamic properties (75%) and potential uses (25%) of magnesium sulphate
7. Describe how propofol is formulated for intravenous administration (50%). Describe the potential problems or side effects for different types of preparations (50%).
8. A non-depolarising muscle relaxant was infused at a constant rate during laparotomy to maintain neuromuscular relaxation. Outline the factors that may affect the time to adequate spontaneous recovery of neuromuscular function after cessation of infusion.
9. Describe the use of ketamine for perioperative pain management.
10. Outline the pharmacology (75%) and clinical uses (25%) of intravenous nitroglycerin.
11. What is a receptor? (25%) How are receptors classified? (25%) Describe the different mechanisms in which a drug interacts with its receptor to produce a response. (50%)
12. Outline the differences in pharmacokinetics between neonates and adults.

***** END *****