



## **The Hong Kong College of Anaesthesiologists**

### **Intermediate Fellowship Examination**

#### **Written Paper in Pharmacology**

**Friday 16<sup>th</sup> February 2001, 14:00 h to 16:00 h**

#### **ANSWER ALL QUESTIONS**

1. Compare and contrast the adverse effects of thiopentone and ketamine including discussion of the clinical relevance of these effects.
2. Describe the effects of isoflurane on the three principal types of muscle tissues.
3. What do the terms potency and efficacy of a drug mean? Show with an illustration how we can compare the relative potencies of two drugs with similar pharmacological effects?
4. What statistical tests can be applied to examine whether the maximum change in heart rate after administration of a study drug in a group of patients is significant or not? What is an appropriate test if there are more than two observations?
5. Describe the mechanism of actions of frusemide. List its clinical uses and side effects.
6. Describe the actions of noradrenaline (norepinephrine) on the cardiovascular system. How does it differ from dobutamine?
7. Compare and contrast atracurium and cis-atracurium.
8. List the routes of administration of opioid analgesics in postoperative pain relief. Highlight the rationale, advantages and disadvantages of these routes.
9. Classify anticonvulsants according to their mechanisms of action and give examples where appropriate.
10. Define addiction, physical dependence and tolerance. Explain why physeptone (methadone) has a low addictive potential.
11. Discuss the evidence that ropivacaine may be safer than bupivacaine in obstetric anaesthesia.
12. Classify antiemetics with reference to the sites and mechanism of action.