



The Hong Kong College of Anaesthesiologists

Intermediate Fellowship Examination

Written Paper in Physiology
Friday, 4 July 2003, 09:00 h. – 11:00 h.

Answer ALL questions

1. How does general anaesthesia affect arterial oxygenation?
2. Explain how strong ion difference (SID) affects acid base balance.
3. How may a spontaneous EEG signal be used to monitor depth of anaesthesia?
4. How do membrane proteins aid movement of solutes across membranes?
5. Discuss the factors affecting gastric emptying time in adults.
6. Describe the ionic basis of the resting membrane potential (RMP).
7. Discuss the factors determining movement of fluid between the intravascular and interstitial compartment.
8. Give an account of the factors that determine the distribution of ventilation in the lung.
9. Briefly discuss the distribution of potassium in the body. Discuss the factors that determine the increase in plasma potassium concentration immediately after 40 mmol of potassium chloride infused over 2 hours to an adult.
10. Describe the cellular mechanisms involved in the regulation of vascular smooth muscle tone.
11. Describe the role of kidney in handling an acid load.
12. Compare and contrast IgG with IgM.