



**The Hong Kong College of Anaesthesiologists  
Intermediate Fellowship Examination  
Written Paper in Physiology**

**Friday, 14 February 2014, 09:00 AM - 11:00 AM**

**The questions carry equal marks. Answer ALL of them.**

1. Outline the physiological response to loss of one liter of blood over 30 minutes in a 70kg healthy adult.
2. Write an account on the non-respiratory functions of the lungs.
3. Describe the physiological regulations of renal blood flow.
4. Outline the principles and limitations of automated oscillometric non-invasive blood pressure monitoring.
5. Describe the physiological effects of glucocorticoids.
6. Discuss the changes in fluid, electrolytes and pH in a patient with carcinoma of the stomach with gastric outlet obstruction, with persistent vomiting for 2 weeks.
7. Outline the physiological consequences after complete bed rest for 2 weeks in a previously healthy person.
8. Explain the role of the skin in maintaining a normal body temperature.
9. Define systemic vascular resistance and outline the factors affecting it.
10. Discuss the changes of the respiratory system in a pregnant woman at term and their implications to anaesthesia.
11. Outline the breakdown of haemoglobin after red cell lysis.
12. Describe the structure and functions of the blood brain barrier.

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