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.

***** END *****