



**First Professional MBBS Degree Supplementary Examinations**

**February 2017**

**PHYSIOLOGY – Paper I**

**Time: 3 Hours**

**Total Marks: 50**

- Answer all questions
- Draw Diagrams wherever necessary

**Long essay**

**(10)**

1. A middle aged man complains of epigastric pain. The pain occurs when he is in empty stomach and it subsides after taking food or antacids. He is having occasional vomiting. Answer the following :
  - What is your provisional diagnosis. List the causes and its treatment.
  - Describe the regulation of gastric secretion in detail.

**(5+5=10)**

**Short essays**

**(2x5 =10)**

2. Special features of coronary circulation.
3. Carbon dioxide transport in blood and haldane effect

**Answer briefly**

**(5x3=15)**

4. Role of baroreceptors in blood pressure regulation
5. Cell mediated immunity
6. Maturation factors in erythropoiesis
7. Clot retraction
8. Mechanisms of glucose re-absorption in the kidney

**Draw and label**

**(2x2½ =5)**

9. Pressure changes during a normal respiratory cycle.
10. Normal electrocardiogram including the duration of segments and intervals.

**Explain the physiological basis of the following**

**(5x2=10)**

11. Sigmoid shape of oxygen hemoglobin disassociation curve
12. Albumin is absent in the urine of normal individuals
13. In an Rh negative mother carrying an Rh positive foetus, the first child is usually normal.
14. Increase heart rate during exercise
15. Pulmonary edema during rapid ascent.

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