

**SS/MBBS/PHY-I/6-19****First Professional MBBS Examination****2019****(June)****PHYSIOLOGY****Paper-I****Full Marks: 50****Time: 2 hours****The figures in the margin indicate****full marks for the questions****Write the answers to the two Halves in separate books****Answer all questions****FIRST HALF**

1. Define blood pressure. Describe the role of baroreceptors in maintaining arterial blood pressure. What is vasovagal syncope? ( 2+6+2=10)

Or

Define erythropoiesis. Name the stages of development of RBCs. Write briefly on the factors regulating erythropoiesis. What is polycythemia? ( 1+3+4+2=10 )

2. Give the physiological bases of the following (any two) : 3×2=6

- (a) Cardiac muscles cannot be tetanized
- (b) Total gastrectomy causes anaemia
- (c) Aspirin in prevention of myocardial infarction

3. Write briefly on the following (any three) : 3×3=9

- (a) Tissue macrophage system

- (b) Facilitated diffusion
- (c) Role of Ca ion as 2nd messenger
- (d) Variation in leukocytic count

### SECOND HALF

Define GFR. Discuss the major factors affecting it. Explain why diuresis occur when there is deficiency of ADH. [ 2+4+4=10]

Or

List the ways in which CO<sub>2</sub> is transported in the blood. Explain with the help of diagram, transport of CO<sub>2</sub> by RBC. What is Haldane effect? [ 2+3+3+2=10]

5. Write short notes on the following (any three) : [ 3 x3 = 9]

- (a) Triple response
- (b) Cyanosis
- (c) Hirschsprung's disease
- (d) Dumping syndrome

6. Write the differences between the following (any two) : [ 3 x2 = 6]

- (a) Segmentation and Peristaltic movements
- (b) Hypoxic and Anaemic hypoxia
- (c) Liver bile and Gallbladder bile

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