

**First Professional MBBS Degree Supplementary Examinations
November 2020**

Physiology - Paper I

Time: 3 Hours

Total Marks: 50

- *Answer all questions to the point neatly and legibly* • *Do not leave any blank pages between answers* • *Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together* • *Leave sufficient space between answers*
- *Draw table/diagrams/flow charts wherever necessary*

Long essay (10)

1. A 50-year-old chronic smoker complains of severe chest pain, crushing in nature, radiating to left shoulder and inside of the left arm. The chest discomfort brought on by the exertion was relieved by rest. After 2 hours he visits a hospital. Emergency room examination showed ST segment elevation, tachycardia and hypertension
- What is he probably suffering from
 - What is the cause for this pain
 - What is the underlying mechanism for the above complaints
 - Explain the salient features of coronary circulation
- (1+2+2+5)

Short essays (2x5 =10)

2. Explain the factors regulating erythropoiesis
3. Phases of gastric juice secretion

Answer briefly (5x3=15)

4. Dysbarism
5. Counter current exchanger
6. Functions of bile
7. Renin-Angiotensin mechanism in blood pressure regulation
8. Factors regulating Glomerular filtration rate

Draw and label (2x2½ =5)

9. Normal ECG wave
10. Oxygen hemoglobin dissociation curve

Explain the physiological basis of the following (5x2=10)

11. Steatorrhea
12. Hyperthermia
13. Cheyne-stokes breathing
14. Anticoagulants in Myocardial infarction
15. Osmotic and pressure diuresis