

# 2019 Scheme

Q.P. Code: 113001

Reg. no.: .....

## **First Professional MBBS Degree Regular Examinations March 2021** **Physiology I**

**Time: 3 Hours**

**Total Marks: 100**

- *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 Essays**

**(2x15=30)**

1. A 55-year-old businessman was brought to medicine casualty with severe chest pain. He was sweating and his BP was 140/94 mm Hg, heart sounds were muffled and the ECG showed ST elevation in lead II and avf.
  - What is the most probable diagnosis.
  - Discuss the pathophysiology of this condition and principles of management.
  - What are the special features of coronary circulation (2+7+6)
2. List the cells and secretion from the Oxytic gland of the stomach. With the help of a diagram explain the mechanism of gastric acid secretion. Explain the phases of gastric acid secretion (5+5+5)

### **Short essays**

**(5x8=40)**

3. Describe the structure and functions of platelets
4. Discuss the cause and clinical features and treatment of dysbarism
5. Describe carbon dioxide transport in the blood
6. Explain Starling's law as applied to cardiac muscle
7. Describe the functions of large intestine and add a note on cause and pathophysiology of Megacolon (Hirschsprung's disease)

### **Write briefly**

**(5x4=20)**

8. Describe structure and functions of neutrophil
9. Define dead space. Describe the types
10. Functions of reticuloendothelial system
11. Describe the role of bicarbonate buffer system in acid-base balance
12. List the hazards of blood transfusion

### **One word Answers**

**(10x1=10)**

13. ECF volume is determined by .....
14. Normal value of renal threshold is .....
15. The force of muscle contraction can be increased by .....
16. The center regulating temperature in cold environment is located in ..... hypothalamus.
17. The wheal in the triple response is due to .....
18. The volume of air that moves in or out during each tidal breath is called .....
19. Intrapleural pressure is normally negative because.....
20. The law explaining plasticity of urinary bladder.....
21. The name of cells secreting renin in kidney.....
22. In caissons disease pain in the joints is due to .....