

## 2010 Scheme

Q.P. Code: 103001

Reg. No.: .....

### First Professional MBBS Degree Supplementary Examinations February 2023 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 forty-two-year-old male complains of severe headaches in the morning, with a blurring of vision for a week. For two days, he complains of severe fatigue and this morning had an episode of a nose bleed with increasing severity of the headache. He reported to the emergency room and was examined by the doctors. There was no previous history of similar illness. On Examination, his blood pressure was 160/110mmHg and when repeated after 15 minutes was 158/110 mmHg.
- a) What is the patient suffering from.
  - b) Define the term blood pressure. What are the normal values for systolic and diastolic blood pressure.
  - c) Explain the long-term regulation of blood pressure.
  - d) What are the non-pharmacologic methods to reduce blood pressure. (1+2+5+2)

**Short essays****(2x5 =10)**

2. What is erythroblastosis foetalis. How can this be prevented.
3. Explain the role of surfactant in respiration and maintaining the stability of the alveoli.

**Answer briefly****(5x3=15)**

4. Explain the role of 'Vasa Recta' in renal function.
5. Regulation of gastric secretion.
6. Enumerate the mechanism of heat loss by the body.
7. Types of movements in the large intestine.
8. Brief note on Heart sounds.

**Draw and label****(2x2½ =5)**

9. Diagram showing the nerve supply of the urinary bladder and sphincters.
10. Steps of erythropoiesis.

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

11. Use of H<sub>2</sub> receptor blockers in peptic ulcer.
12. Prolongation of the PR interval.
13. Use of anticoagulant – Heparin, in prolonging clotting time.
14. Forced Expiratory Volume in the 1<sup>st</sup> second (FEV<sub>1</sub>) in COPD.
15. Use of Oral Rehydration Solution (ORS) in treatment of diarrhea.