

## 2010 Scheme

Q.P. Code: 103001

Reg. No.: .....

### **First Professional MBBS Degree Supplementary Examinations June 2026 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 45-year-old female had a history of fever for 2 days. Now she is complaining of fatigue and generalized weakness. She has observed the appearance of small red dots on her skin and palm of both hands & gums. There was also a history of bleeding from gum during tooth brushing. She gave the history of massive bleeding by minor cut during domestic work. On examination and investigation showed Platelet count was 30,000/cumm.
  - a) What is the most probable diagnosis
  - b) What is the normal platelet count and its site of production. Explain the role of platelets in clotting mechanism
  - c) What are the causes of platelet deficiency
  - d) Describe the intrinsic mechanism of blood coagulation

**(1+1+2+1+5)****Short essays****(2x5 =10)**

2. Describe the long-term mechanisms of blood pressure regulation
3. Describe the Chemical regulation of respiration

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

4. Describe chloride shift
5. Describe origin and spread of cardiac impulse
6. Functions of juxta glomerular apparatus
7. Describe the mechanism of development of fever
8. Describe the movements of small intestine

**Draw and label****(2x2½ =5)**

9. Phagocytosis by neutrophil
10. Cardiac cycle showing various phases and heart sounds

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

11. Alkaline urine in an acclimatized person
12. Albumin is absent in the urine normally
13. How pulsatile ejection of the heart gets converted into steady outflow at the periphery
14. Gastro oesophageal reflux disease
15. Micelle formation

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