

**2010 Scheme**

Q.P. Code: 103001

Reg. No.: .....

**First Professional MBBS Degree Supplementary Examinations  
February 2022****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-five-year-old female complains of fatigue and generalized weakness. She has observed the appearance of small, red dots on her skin and gums two days back. When she was injured during her domestic work, wound bled for a prolonged period. On examination and investigations, her platelet count was 30,000/cu mm and her clotting time was prolonged. She has no previous history of taking any medications, nor did she suffer from any viral infection recently.

- What is she suffering from
- What is the normal platelet count and where they are produced
- Explain the role of Platelets in clotting mechanism
- What are the causes of platelet deficiency

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

2. How cardiac output is regulated  
3. Explain the neural regulation of respiration

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

4. Micturition reflex  
5. Stages of deglutition  
6. Skin as thermostat  
7. Role of baroreceptors in blood pressure regulation  
8. Movements of small intestine

**Draw and label****(2x2½ =5)**

9. Conducting system of the heart  
10. Normal spirogram

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

11. Tachycardia in hemorrhagic shock  
12. Use of proton pump inhibitors in peptic ulcer  
13. Polyuria and polydipsia in diabetes insipidus  
14. Exchange transfusion in Erythroblastosis fetalis  
15. Cyanosis

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