

2010 Scheme

Q.P. Code: 103001

Reg. No.:

First Professional MBBS Degree Supplementary Examinations January 2024 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 two-year-old baby girl was admitted presenting with pallor, recurrent fever episodes, weakness and fatigue since 4 months. On examination, the spleen was found to be enlarged. The peripheral blood picture revealed normocytic normochromic RBCs, however, the WBCs showed a significant number of blast cells. Blood tests also revealed that platelets were reduced and there was thrombocytopenia.

- a) What is the patient suffering from
- b) What is the significance of seeing blast cells in a peripheral blood smear
- c) Explain the steps of leucopoiesis
- d) Why does thrombocytopenia occur in this condition

(1+2+5+2)

Short essays

(2x5 =10)

2. Enumerate and explain the properties of cardiac muscle.
3. Where are the chemoreceptors situated. How do they regulate respiration.

Answer briefly

(5x3=15)

4. Juxtaglomerular apparatus.
5. How is hypoxia classified. Explain any one in detail.
6. Explain the role of skin in regulating body temperature.
7. Enumerate the functions of the Liver.
8. List the classification of Anemia based on the cause.

Draw and label

(2x2½ =5)

9. Nephron and all its parts.
10. The different waves and intervals of an Electrocardiogram.

Explain the physiological basis of the following

(5x2=10)

11. Bradycardia in trained athletes.
12. Polycythemia in High altitude areas.
13. Sigmoid shape of the Oxygen Dissociation curve.
14. Alkaline tide after a meal.
15. Renal threshold for glucose and glycosuria in diabetes mellitus.
