

2022

**PHYSIOLOGY**

**[Honours]**

**(B.Sc. Second Semester End Examination-2022)**

**PAPER-C3T**

*Full Marks: 40*

*Time: 02 Hrs*

*The figures in the right hand margin indicate marks*

*Candidates are required to give their answers in their own words as far as practicable*

*Illustrate the answers wherever necessary*

**1) Answer any five questions from the following: 5x2= 10**

- i) Define Isoelectric point.
- ii) What do you mean by plasma pheresis?
- iii) Define Enthalpy.
- iv) Mention the difference between simple and facilitated diffusion.
- v) Write two physiological applications of osmosis.
- vi) What is a Megakaryocyte?
- vii) Define Viscosity?
- viii) What is plasma skimming?

**2. Answer any four questions from the following: 4x5 = 20**

- i) Explain the second law of thermodynamics? Define Isolated system? Give example. 3+1+1

(2)

ii) Explain the Henderson-Hasselbalch equation? What is Poiseuille's law? 3+2

iii) Differentiate between 'Lyophilic sols' and 'Lyophobic sols'. 5

iv) Write short note on Thalassaemia and Erythroblastosis fetalis.

$$2\frac{1}{2} + 2\frac{1}{2}$$

v) What are the hazards of blood transfusion? What is an anti-coagulant? Give example. 3+1+1

vi) Write about the structure and functions of spleen. 3+2

**3. Answer any one question of the following: 1x10 = 10**

i) What do you mean by 'Salting in'? explain about the Gibbs-Donnan membrane equilibrium. 2+8

ii) Discuss the biosynthesis of haemoglobin, write the biological application of osmosis. 7+3

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