449/Phy. 22-23/32511

B.Sc. Semester-III Examination, 2022-23 PHYSIOLOGY [Honours]

Course ID: 32511 Course Code: SH/PHY/301/C-5(T)

Course Title: Circulating Body Fluids

Time: 1 Hour 15 Minutes Full Marks: 25

The figures in the right-hand margin indicate marks.

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

1. Answer any **five** of the following questions:

 $1 \times 5 = 5$

- a) What is leucocytosis?
- b) What is thrombocytopenia?
- c) Why is blood called a connective tissue?
- d) Define MCHC.
- e) How is intrinsic thromboplastin formed?
- f) Name any two vitamins responsible for erythropoiesis.
- g) Define diapedesis.
- h) What is aplastic anaemia?

2. Answer any **two** of the following questions:

 $5 \times 2 = 10$

- a) Write a short note on nutritional anaemia. What are 'Howell-Jolly' bodies? 4+1
- b) Which group of blood is called universal donor and why? Briefly mention the importance of blood group antigens. 2+3
- c) Write the role of white blood cells in body defence mechanism.
- d) 'Biconcave shape of RBC has physiological advantage' Explain it. State the mechanism of action of heparin in human body. 2+3
- 3. Answer any **one** of the following questions:

 $10 \times 1 = 10$

- a) Describe the mechanism of extrinsic pathway of blood coagulation mentioning the factors affecting it. 6+4
- b) Describe any one method of plasma protein separation. What is Whipple's experiment? What is erythroblastosis foetalis? 5+3+2
