

B.Sc. 3rd Semester (Honours) Examination, 2020-21

PHYSIOLOGY

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 margin indicate full marks.

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

1. Answer any five questions from the following: 1×5=5

- (a) Define haematocrit.
- (b) Differentiate between plasma and serum.
- (c) Name any two cells present in lymph.
- (d) Define erythroblastosis foetalis.
- (e) What are the T and R forms of haemoglobin?
- (f) Mention any two identifying characters of monocyte.
- (g) What is ESR?
- (h) Define Landsteiner's Law.

2. Answer any two questions from the following: 5×2=10

- (a) Write the function of megakaryocyte. Differentiate between yellow and red bone marrow. 2+3= 5
- (b) Discuss the composition and functions of lymph. 2+3= 5
- (c) Name any one artificial anticoagulant and mention its mechanism of action. 1+4 =5
- (d) Explain the basis of "ABO" blood grouping. Mention any two conditions for blood transfusion. 3+2 = 5

3. Answer any one question from the following: 10×1=10

- (a) Describe the modern concept of blood coagulation. Mention the role of calcium and vitamin-K in the process of blood coagulation. 6 +2+2 = 10
- (b) Define erythropoiesis. Mention the stepwise development of RBC in our body. What is methaemoglobin? Differentiate between adult and foetal haemoglobin. 1+5+2+2=10