

B.Sc. 3rd Semester (Honours) Examination, 2019-20**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 'Armeth index'.
 - (b) What is 'Human Leucocyte Antigen'?
 - (c) Define methaemoglobin.
 - (d) What do you mean by Thalassaemia?
 - (e) What are the peculiarities of HbF?
 - (f) Why blood does not clot in circulation?
 - (g) How does a reticulocyte differ from a mature erythrocyte?
 - (h) What is D-antigen?
2. Answer *any two* questions from the following: 5×2=10
- (a) Name any one chemical anticoagulant. State its mechanism of action in our body. 1+4=5
 - (b) Write the mechanism of lymph formation. Mention any two functions of lymph node. 3+2=5
 - (c) What are the difference between plasma and serum? State the role of vitamin K in coagulation. 2+3=5
 - (d) Describe the different types of anaemia. 5
3. Answer *any one* question from the following: 10×1=10
- (a) Describe the steps of biosynthesis of haemoglobin mentioning the role of enzymes. What is plasmapheresis? Mention its significance. 6+2+2=10
 - (b) Mention the role of vitamin B₁₂ and folic acid in erythropoiesis. What are the functions of WBC? Define innate immunity. 2+2+3+3=10