Roll No……..….. **Total No. of Printed Pages: [01]**
Total No. of Questions: [09]

B.Sc. Medical Laboratory Science (Semester-2nd)
HEMATOLOGY & HEMATOLOGICAL TECHNIQUES-II
Subject Code: BMLS1-210
Paper ID: [130507]

Time: 03 Hours **Maximum Marks: 60**

Instruction for candidates:

1. Section A is compulsory. It consists of 10 parts of two marks each.
2. Section B consist of 5 questions of 5 marks each. The student has to attempt any 4 questions out of it.
3. Section C consist of 3 questions of 10 marks each. The student has to attempt any 2 questions.

Section – A **(2 marks each)**

Q1. Attempt the following:
a) Classify coagulating factors?
b) Give molecular formula of HbF?
c) What is carboxyhaemoglobin? Give its significance?
d) Write the principle of Hess test?
e) Write functions of thrombosthenin?
f) Differentiate between bleeding and clotting time?
g) Write the function and clinical significance of PT?
h) Define parahemophilia?
i) What is clot retraction test?
j) Enumerate the functions of thromboplastin?

Section – B **(5 marks each)**

Q2. Write a brief account on thalassemia?
Q3. Write various physiochemical properties of coagulation factors?
Q4. Discuss various complications and hazards associated with blood transfusion?
Q5. Write a brief note on ABO and Rhesus blood group system?
Q6. Give a brief account on the screening coagulation procedures of activated partial thromboplastin time?

Section – C **(10 marks each)**

Q7. Describe hemostatic mechanism and Give detailed account on various theories of blood coagulation?
Q8. Define unstable haemoglobin and how it differs from abnormal haemoglobin? Discuss various methods to differentiate the unstable and abnormal haemoglobin? Mention their significance?
Q9. Describe biosynthesis of heme? Write its functions and degradation?