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Total No. of Printed Pages: [01]

Total No. of Questions: [09]

**B.Sc. (MLS/MLT) (Semester – 2nd)**  
**HEMATOLOGY & HEMATOLOGICAL TECHNIQUES-II**  
**Subject Code: BMLS1210**  
**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. Importance of blood grouping
- b. Name the conditions of prolonged APTT
- c. Write note on Rh factor
- d. Explain forward and reverse blood grouping
- e. Define clotting times.
- f. Enumerate various methods of blood grouping
- g. Write down the tests to detect to abnormal hemoglobins
- h. Enumerate various anticoagulant-preservatives used for blood collection
- i. Enumerate various abnormal hemoglobins
- j. Which blood group is universal recipient and why

**Section – B**

**(5 marks each)**

- Q2. What is the principle, methods and clinical applications of bleeding time
- Q3. Explain various hazards of blood transfusion
- Q4. Write a note on Prothrombin time (PT) and Activated Partial Thromboplastin Time (APTT)
- Q5. Explain Hess test and its clinical significance
- Q6. Describe test tube method for compatibility testing

**Section – C**

**(10 marks each)**

- Q7. Describe ABO blood group system
- Q8. Describe various types, synthesis, degradation and functions of Hemoglobin
- Q9. Explain pathways of coagulation