

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(END SEMESTER EXAMINATION)**

**CLASS: B.SC MLT
BRANCH: MLT**

**SEMESTER: II
SESSION: SP/2025**

SUBJECT: BMT203 HEMATOLOGY I

TIME: 3 Hours

FULL MARKS: 50

INSTRUCTIONS:

1. The question paper contains 5 questions each of 10 marks and total 50 marks.
 2. Attempt all questions.
 3. The missing data, if any, may be assumed suitably.
 4. Before attempting the question paper, be sure that you have got the correct question paper.
 5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
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		CO	BL
Q.1(a)	Mention significance of hematology. Write composition and function of blood.	[5] CO1	1
Q.1(b)	Discuss haematopoiesis.	[5] CO1	2
Q.2(a)	Why various types of anticoagulants are used. Write in short on EDTA	[5] CO2	3
Q.2(b)	Discuss double oxalates and heparin as anticoagulants.	[5] CO2	2
Q.3(a)	Why normal range of packed cell volume are more in infants as compared to adults. Mention normal values of PCV.	[5] CO3	3
Q.3(b)	Discuss physiological variations of leukocytes and hemoglobin.	[5] CO3	2
Q.4(a)	Discuss Cyanmethemoglobin method for hemoglobin estimation	[5] CO4	2
Q.4(b)	Mention significance of diluting fluids in hemocytometry. Write calculation for estimation of red blood cell by visual method.	[5] CO4	2
Q.5(a)	Enlist factors affecting erythrocyte sedimentation rate (ESR). Discuss any two methods of ESR estimation.	[5] CO5	2
Q.5(b)	Discuss tests for ketonuria.	[5] CO5	2

:26/04/2025:E