JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- 2026

B.Tech-VII Semester (BT)

COURSE CODE (CREDITS): 14B1WBT739 (3) MAX. MARKS: 15

COURSE NAME: Stem Cells & Regenerative Medicines

COURSE INSTRUCTOR: Dr. Udayabanu MAX. TIME: 1 Hour

Note: *(a) All questions are compulsory.*

(b) The candidate is allowed to make Suitable numeric assumptions wherever required for solving problems

(c) Use of calculator is not allowed

Q.No	Question	CO	Marks
Q1	Define haematopoiesis. Describe the conditions during which haematopoiesis is increased?	CO1	3
Q2	Differentiate the function of osteoblasts and osteoclasts in bone tissue renewal.	CO2	3
Q3	Design a protocol for the isolation of stem cells from mouse bone marrow.	CO3	3
Q4	In some individual transplanted mice, there were cells of all leukocyte types bearing the same marker. In other mice, ALL myeloid but NOT lymphoid cells had the same marker. And in yet others ALL lymphoid but NOT myeloid cells had the same marker. Interpret the results from the above findings.	CO1	2
Q5	Justify the following: a) Asymmetric cell division of stem cells (1) b) Embryonic stem cells are advantageous over adult stem cells (2) c) Adult stem cell plasticity (1)	CO2	4

SUBJECT EXAMINATION-AUG-2026

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