

## JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- 2025

B.Tech-VII Semester (BT/BI)

COURSE CODE (CREDITS): 14B1WBT739 (3)

MAX. MARKS: 15

COURSE NAME: Stem Cell and Regenerative Medicine

COURSE INSTRUCTORS: 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

Q.No	Question	CO	Marks
Q1	Adult humans consist of more than 200 kinds of cells. Summarize the types of stem cells and its unique properties.	CO1	3
Q2	Distinguish embryonic stem cell and adult stem cell. State the advantages of either of the stem cell type.	CO1	3
Q3.	Demonstrate the importance of Yamanaka Factors and discuss the limitations of induced pluripotent stem cells	CO2	3
Q4.	Assess the haematopoiesis process and discuss the shift in haematopoiesis during developmental stages.	CO2	3
Q5	Define the following: a) Stem cell niche b) Progenitor c) Osteoblast	CO2	3