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JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

Make up EXAMINATION- 2025

B.Tech-VII Semester (BT/BI)

COURSE CODE (CREDITS): 14B1WBT739 (3)

MAX. MARKS: 25

COURSE NAME: Stem Cell and Regenerative Medicine

COURSE INSTRUCTORS: Dr. Udayabanu

MAX. TIME: 1 Hour 30 min

*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	Design a protocol for isolation and culture of mesenchymal stem cells from the mouse bone marrow.	CO2	5
Q2	Organize the developmental stages of adult neurogenesis in the subventricular zone of rodent brain lateral ventricle and olfactory bulb. List some markers representing the stage of neurogenesis	CO3	5
Q3	With a neat diagram state the process of healing that include interdependent cascade of events after skeletal muscle injury. Justify the role of antifibrotic agents.	CO3	5
Q4	Asses the early stages for production erythrocytes and platelets. Justify that both pass through a common pathway.	CO2	5
Q5	Demonstrate the advantages and unique properties of polymeric scaffolds	CO5	5

(45)