

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- 2025

M.Sc-I Semester (BT/BI)

COURSE CODE (CREDITS): 20MS1BT113 (2)

MAX. MARKS: 15

COURSE NAME: Plant and Animal Biotechnology

COURSE INSTRUCTORS: Dr. Udayabanu & Dr. Hemant

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	Marks
Q1	How would you like to produce in vitro raised shoots of the potato cultivar Jyoti Kufri from the field-grown mother plantlets? Design a methodology for the clonal production of the same.	(2+2)
Q2	Explain the following with suitable reasons: a. Activated charcoal is always supplemented in Plant tissue culture media, or it is optional. b. Hardening is important for the transplantation of tissue-cultured plants or not.	(1.5+2)
Q3.	Assess a given continuous animal cell line culture and highlight the properties of a continuous culture.	2.5
Q4.	Justify the importance of inorganic salts and phenol red indicator in a basal media for the culture of animal cell lines.	2.5
Q5	Interpret the advantage of using EDTA along with trypsin and DMSO in cryopreservation	2.5