

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- 2024

M.Sc-I Semester (BT)

COURSE CODE(CREDITS):20MS1BT113 (2)

MAX. MARKS: 15

COURSE NAME: Plant and Animal Biotechnolgy

COURSE INSTRUCTORS: Dr. Udayabanu & Dr. Hemant

MAX. TIME: 1 Hour

Note: (a) All questions are compulsory.

(b) Marks are indicated against each question in square brackets.

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

1. Design an experiment to isolate primary neuronal cells from the hippocampus of mouse.
[4 Marks]
2. Mention the importance of following:
 - a. Inorganic salts in media and Passaging of cells [2 Marks]
 - b. DMSO and Population doubling time [2 Marks]
3. Which technology would produce a large number of genetically identical and high-content genotypes of *Hypericum perforatum*? Conceptualize the protocol for the production of 200 plants in pots in 3 months from the plant resources grown in the herbal garden of JUIT. [3 Marks]
4. Explain with reasoning or mechanism : [1+1 Mark]
 - a) Ascorbic acid is used to remove oxidative browning.
 - b) Auxins and cytokinins are regulating adventitious shoot formation
5. Which landmark historical event according to you has an impact on the present status of Plant biotechnology and How? [2 Marks]