

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATIONS-2025

B.Tech-4 Semester (BT)

COURSE CODE: Cell Biology and Culture Technology (4)

MAX. MARKS: 15

COURSE NAME: 18B11BT411

COURSE Coordinator: Dr Hemant /Dr Udaybanu

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	Differentiate Prokaryotes and Eukaryotes	CO1	2.5
Q2	Justify the importance of phospholids and its properties in maintaining cellular integrity	CO2	2.5
Q3	Carrier proteins and channel proteins are the two major classes of membrane transport proteins. Explain with example, how they regulate cytosolic pH?	CO1	2.5
Q4	Which two historical aspects of a plant cell or tissue culture contributed to revolutionizing the present application of this technology at a commercial scale? How would you justify that?	CO1	2.0
Q5	For producing 50 clones of Red Lily flowers with 7 petals in 2 months duration of time from filed grown mother plant. Which technique you would like to apply and how you would like to proceed for their production?	CO2 &3	4.0
Q6	Which plant tissue media component is highly significant for in vitro growth of plants under optimized conditions and why is so?	CO2	1.5