

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

MAKEUP EXAMINATION- 2016

B.Tech Biotechnology(IV Semester)

COURSE CODE: 10B11BT412

MAX. MARKS: 25

COURSE NAME: Cell Culture Technology

COURSE CREDITS: 04

MAX. TIME: 1Hr 30 Min

Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means.

Q1. How would you like to check the plant cell growth? Mention different methodologies with their importance. (5)

Q2.(a) What are the different stages of development in micropropagation?(3)

(b) Which stage is of high significance and why?(2)

Q3 How indirect somatic embryogenesis is carried out in *Malus domestica*? Draw with diagrammatic representation also. What are the drawbacks and advantages?(5)

Q4.What is the ideal growth curve for animal cells in culture? How will you estimate animal cell viability using trypan blue and MTT assay?(5)

Q5. (a)What are the components of animal basal media? Explain.(3)

(b) Write a note on supplements and FCS/FBS used in animal cell culture.(2)