

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY WAKNAGHAT

TEST -I EXAMINATION- FEB-2025

M.Tech -2nd Sem (BT)

COURSE CODE(CREDITS):21MIWBT231(3)

MAX. MARKS: 15

COURSE NAME: Plant Biotechnology

COURSE INSTRUCTORS: Dr Hemant Sood

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

	Question	Marks
Q1	Conceptualize a strategy for the developing transgenic strawberries by using GUS as selectable gene for the transfer of FRR gene for enhancing flavonoid production. Explain the complete protocol followed by you for the production of <i>Agrobacterium</i> based transformation.	5
Q2	How you would like to produce 100 artificial seeds of potato cultivar Jyoti Kufri per harvest after 15 days of incubation? Design a methodology for the large scale production of the somatic seeds by using in vitro technologies.	5
Q3.	Explain the following with suitable reasons: a. Activated charcoal is always supplemented in Plant tissue culture media. b. FDA testing is the only authentic testing for cell viability. c. Somaclonal variations are only reasoned with genetic causes. d. Thermotherapy is enough for the production of virus free plants. e. Androgenesis is the only mode of haploid plant production	5