

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -I EXAMINATION- FEB-2024

M.Sc -4th Sem (Microbiology)

COURSE CODE(CREDITS):21MS1MB412(3)

MAX. MARKS: 15

COURSE NAME: Plant & Agricultural Microbiology

COURSE INSTRUCTORS: Dr Hemant Sood

MAX. TIME: 1 Hour

Note: All questions are compulsory. Marks are indicated against each question in square brackets.

- Q1. How microbes are contributing to crop development programs? What kind of interactions are benefitting the growth and development of the crops? Explain with examples (3)
- Q2. Develop a protocol for the development of transgenic strawberries by using ESPS as selectable for the transfer of FRR gene for enhancing flavonoid production. Explain the complete protocol. (3)
- Q3. Which biotechnological interventions are playing a major role in Agricultural sciences for crop improvement? Mention any two products developed out of these agricultural biotechnologies for the benefit of the masses.(3)
- Q4. Do you agree that somaclonal variations are also contributing in genetic transformations? How it is carried out for the development of disease-resistant varieties against Late Blight of potatoes? (3)
- Q5. Which is the most effective and rapid methodology for the production of 100 clones of peaches having a thin peel character? Which one is the challenging step for the production of the same? (3)