

B.Sc. Semester-VI Examination, 2022-23**MICROBIOLOGY [Honours]**

Course ID : 62216 Course Code : SH/MCB/603/DSE-3

Course Title : Microbes in Sustainable Agriculture and
Development

Time : 1 Hour 15 Minutes

Full Marks : 25

*The figures in the right-hand margin indicate full marks.**Candidates are required to give their answers in their own words as far as practicable.***Answer all the questions.****UNIT-I**1. Answer any **five** questions from the following:

1×5=5

- What are the minerals of Nitrogenase enzyme?
- Name one bio-fuel yielding bacteria.
- Why Bt-cotton is so called?
- Name one non-symbiotic nitrogen fixer.
- Which enzyme helps in cellulose decomposition?
- Which stain is used for isolation of *Rhizobium*?
- Name one blue green alga which is used as biofertilizer.
- Name one nitrifying bacterium.

*[Turn Over]*2. Answer any **two** questions from the following:

5×2=10

- Describe the process of golden rice plant preparation.
- Write down the process of methane gas production.
- Briefly describe the making process of biofertilizer using symbiotic N₂-fixers.
- Write a short note about the humus decomposition by bacteria.

UNIT-III3. Answer any **one** of the following questions:

10×1=10

- Briefly describe about the microorganisms used as bio-control agents against insects and weeds.
5+5=10
- Describe the principle, advantages and processing of bio-gas production.
2+3+5=10