

M.Sc. 3rd Semester Examination, 2022

MICROBIOLOGY

(Agricultural Microbiology/Medical Microbiology)

PAPER — MCB-302.1&302.2

Full Marks : 40

Time : 2 hours

The figures in the right hand margin indicate marks

Candidates are required to give their answers in their own words as far as practicable

PAPER—MCB-302.1

(Agricultural Microbiology)

[Marks : 20]

A. Answer any *two* questions :

2 × 2

1. What do you understand by symbionts ?
2. State the molecular weight of leghemoglobin.

(Turn Over)

3. What are endophytes ?

4. What is EIU ?

B. Answer any *two* questions : 4 × 2

5. Write a short note on the importance of *Trichoderma* as biocontrol agent.

6. Mention the basic characteristics of liquid biofertilizer.

7. State the method of biofertilizer applications.

8. State the role of microbes in nitrogen cycling.

C. Answer any *one* question : 8 × 1

9. What are biofertilizers ? State its importance.
State the advantages of micropropagation. 2 + 2 + 4

10. What is vermiculture ? State the process of vermiculture. 2 + 6

PAPER—MCB-302.2

(*Medical Microbiology*)

[*Marks : 20*]

D. Answer any *two* questions : 2 × 2

11. Why live vaccine is stable over killed vaccine ?

12. What are the major drawbacks of traditional vaccine production ?

13. Why an individual bearing 'A' antigen in blood-cell has 'B' antibody (agglutinin) in the plasma ?

14. Which proteins of HIV are targeted for development of an effective vaccine ?

E. Answer any *two* questions : 4 × 2

15. State the characteristics of DNA vaccine.

16. Describe the sequential steps for ELISA test *emphasizing* the types of enzyme used.

17. Mention the possible hazards of matched blood transfusion.
18. Describe the national immunization schedule of children.

F. Answer any *one* question :

8 × 1

19. Discuss briefly about the hazards of vaccination.
 20. Describe the production of monoclonal antibody and its uses for effective killing of cancerous cells.
-