

Microbiology (P.G.)

[CBCS]

M.Sc. Second Semester End Examination-2024

(Regular & Supplementary Paper)

PAPER- MCB-204 (CBCS)

(Microbes in infection and environment)

Full Marks: 40

Time: 02 Hrs

The figures in the right hand margin indicate marks

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

Illustrate the answers wherever necessary

- 1. Answer any five questions of the following: 5x2= 10**
- a. What are biogenesis and abiogenesis?
 - b. What is the difference of bacterial and archeal cell structure?
 - c. Why milk is considered as an excellent bacteriological culture medium?
 - d. What are extremophiles? Give two examples.
 - e. Write down the contribution of Martinus Willem Beijerinck.
 - f. What is golden era of microbiology?
 - g. Write down the importance of bacteria in food industry.
 - h. What is phage therapy?

2. Answer any four questions of the following: 4x5= 20

- a. Write down the contribution of L.Pasteur and R.koch to developed the microbiology. 5
- b. What is biogeochemical cycle? Write down the general role in biogeochemical cycle. 2+3
- c. Schematically represent the sulphur and phosphorus cycle. 2.5+2.5
- d. Write down the role of microbes in biofuel production. 5
- e. What is the importance of plant growth promoting rhizobacteria (PGPR)? 5
- f. Write down the importance of bioremediation. 5

3. Answer any one question of the following: 1x10=10

- a. Briefly describe the basic mechanism to reduce the pollution by microorganism. Write down the importance of microbiomes. 5+5
- b. Write the mode of pathogenesis. State the common fungal diseases. 5+5