

**Microbiology [Minor]
[NEP-CBCS]**

B.Sc. First Semester End Examination-2023

PAPER: MCB MI-01

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

Group A

Answer any FIVE questions of the following: 5x2= 10

- 1) Write down the importance of phase contrast microscope?
- 2) Define biodeterioration.
- 3) Name two human diseases caused by virus.
- 4) What is the characteristics of a mutualistic relationship?
- 5) Give example of microorganisms responsible for canned food spoilage.
- 6) What is Abiogenesis?
- 7) Define prions.
- 8) What is natural classification?

(2)

Group B

Answer any FOUR questions of the following: 4x5 = 20

- 1) Describe Koch's postulates? Why are pure cultures important to Koch's postulates? 3+2
- 2) Write a short note on Carl Woese's three kingdom classification system. 5
- 3) Define refractive index? What is the function of immersion oil? Give an example of basic dye. 2+2+1
- 4) Differentiate between primary and secondary metabolites and write its differences. 5
- 5) Write a short note on the role of microbes in the production of fermented food product. 5
- 6) Define Pasteurization? Write the working principle of Laminar air flow. 2+3

Group C

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

- a) Write a short note on contribution of Louis Pasteur in the field of microbiology. What is the mode of action of moist heat as an antimicrobial agent? Define probiotics. Briefly describe the role of microorganism in hydrocarbon degradation. 2+3+2+3
- b) Briefly describe
 - i) SCP
 - ii) Rhizobium biofertilizer
 - iii) Commensalism
 - iv) Type of antibody 2.5x4