

B.Sc. Semester - 2 (NEP-2020) Examination**JUNE – 2024****MIC: Microbial Physiology -1 (Major-3)****Time: 2:00 Hours****Marks: 50****Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate marks.

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- Que:1 (1) Provide examples of different classifications of carbohydrates and their biological functions. (05)
- (2) Explain the classification of proteins based on structure and function. (05)
- OR
- Que:1 (1) Describe the classification of lipids. (05)
- (2) Describe the structures of DNA and their respective roles in biological processes. (05)
- Que:2 (1) Describe Chemical property of enzymes and its significance in catalysis. (05)
- (2) Explain the classification system used for enzymes. (05)
- OR
- Que:2 (1) Describe the mechanism of enzyme inhibition and provide an example. (05)
- (2) How does variation in Enzyme activity influence cellular metabolism. (05)
- Que:3 (1) Briefly explain two types of microbial control methods and their principles. (05)
- (2) Define sterilization and provide an example of a sterilization method. (05)
- OR
- Que:3 (1) Discuss how antimicrobial agents are evaluated and selected for use. (05)
- (2) Provide examples of two types of bacteriological media and their uses in microbiological studies. (05)
- Que:4 (1) Describe the effects of radiation on microbial cells and mention three types of radiation used for microbial control. (05)
- (2) Discuss the antimicrobial properties of alcohols and their applications. (05)
- OR
- Que:4 (1) Briefly describe the process of gaseous sterilization and its applications. (05)
- (2) Explain the phenol coefficient method. (05)
- Que:5 (1) Describe the structures of RNA and their respective roles in biological processes. (05)
- (2) Define enzymes and discuss two characteristics that distinguish enzymes from other biological catalysts. (05)
- OR
- Que:5 (1) Differentiate between disinfectant and antiseptic. (05)
- (2) Define desiccation and explain its role in microbial control. (05)
