

Faculty of Science**B. Sc (Microbiology) I-Year, CBCS –II Semester Regular Examinations –January, 2021****PAPER: Microbial Physiology and Biochemistry**

Time: 2 Hours

Max Marks: 80

I. Answer any four of the following questions (4x20=80 Marks)

1. Classify different types of microorganisms based on their nutrition.
2. Explain bacterial growth curve in detail.
3. Explain glycolysis and its alternative pathways in bacteria.
4. Give a detailed description on electron transport chain in bacteria.
5. Write about the general characteristics of fatty acids and lipids.
6. Write about the properties and classification of enzymes.
7. Define buffers, its types and uses in biological reactions.
8. Give the principle and applications of gel electrophoresis.

Faculty of Science
B.Sc (Microbiology) I-Year, CBCS –II Semester
Regular Examinations –June, 2023
PAPER: Microbial Diversity

Time: 3 Hours

Max Marks: 80

Section-A

- I. Answer any *eight* of the following questions (8x4=32 Marks)
1. Legal and ethical issues of biodiversity
 2. Eukaryotic organisms
 3. Second edition of Bergey's Manual
 4. Archea
 5. Cyanobacteria
 6. Planctomycetes
 7. Plasmodium
 8. Rhodophyta
 9. Features of zygomycetes
 10. Human microbiome
 11. Preserved and perturbed microbial ecosystems
 12. Great plate count anomaly

Section-B

- II. Answer the following questions (4x12=48 Marks)
- 13.(a) Classify the living organisms according to Whittaker and Carl Woese classification.
- (OR)
- (b) Give the details of elements of biodiversity.
- 14.(a) Explain the metabolic characteristics of extremophiles.
- (OR)
- (b) Outline the general characteristics of Mycoplasmas.
- 15.(a) Write about the general characteristics of Algae.
- (OR)
- (b) Outline the classification of Fungi with suitable examples.
- 16.(a) Write about various methods to assess microbial diversity.
- (OR)
- (b) Give a detailed account of various types of microbial interactions.
