

**Microbiology [Major]****[NEP]****B.Sc. First Semester End Examination-2024****[Supplementary Paper]****PAPER-MCB MJ-101T****[Introduction to Microbiology and Microbial Diversity]****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**

1. Answer any FIVE questions of the following: 5x2= 10
- a) What is nucleocapsid? 2
  - b) Differentiate between protista and monera. 2
  - c) What are the different pigments-present in algae? 2
  - d) List the name of two scientists who disproved the concept of spontaneous generation. 2
  - e) Write down the scopes and applications of microbiology. 1+1
  - f) What is Leishmaniasis? 2
  - g) What is fermentation? 2

(2)

- h) Write down the contributions of Paul Ehrlich and Edward Jenner. 1+1

**Group B**

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

- a) What is golden era of microbiology? What is amoebiasis? 3+2
- b) Write down applications of algae in agriculture, industry, and food. 2+2+1
- c) Briefly describe the mode of reproduction of fungi. 5
- d) Write down the general characteristics of plasmodium 5
- e) Write down the differences between prokaryotic and eukaryotic organisms. 5
- f) Write down the economic importance of fungi. 5

**Group C**

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

- a) Write down the limitation (s) of three kingdom system. Write down the concept of five kingdom system. Write down the general characteristics of virus, viroid and prion. 2+4+4
- b) Write down the Carl Woese's three kingdom classification systems and their utility Differentiate between archaea and eubacteria, What is heterokaryosis? 3+4+3
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