Microbiology [Major] [NEP]

B.Sc. First Semester End Examination-2024 PAPER-MCB MJ-101T

[Introduction to Microbiology and Microbial Diversity with Concept of Micro-biome]

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

An	iswer any FIVE questions of the following:	:=10
1)	What is Binomial Nomenclature? Write its importance.	2
2)	Differentiate between protista and monera.	2
3)	What is meant by biogenesis?	2
4)	How can protozoal infections be prevented and treated?	2
5)	Write the scope and application of microbiology.	2
6)	Write the general character of microorganism. Name	two
	nitrogen-fixing bacteria.	1+1
7)	What are antibiotics?	2
8)	State Koch's postulate.	2

Group B

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

1) What is microbiome? Write down the importance of microbiomes in human health. 2+3

2) Write down applications of algae in agriculture, industry, and food. 2+2+1

3) Briefly describe the mode of reproduction of fungi. 5

- 4) Why 'kala azar' is so named? Write down the relation between melanin and leishmaniasis. How could protozoa obtain their food?
 3+2
- 5) What are stoneworts and diatomaceous earth? Classify the algae according to their pigments. 2+3
- 6) Write briefly on the contribution of Edward Jenner and Louis Pasteur. $2\frac{1}{2} + 2\frac{1}{2}$

Group C

Answer any ONE question of the following: $1 \times 10 = 10$

1) Write the Carl Woese's three kingdom classification systems and their utility. Differentiate between prokaryotic and eukaryotic microorganisms. What are the differences between algae and fungi?

4+4+2

Write down the limitation (s) of three kingdom concept of life.
Write briefly on the cell wall structure of bacteria. What is the medical importance of plasmodium?
2+5+3