

B.Sc. (CBCS Pattern) Sem-I
MIC-01 - Microbiology Paper-I : Fundamentals of Microbiology

P. Pages : 2

Time : Three Hours



GUG/W/22/11558

Max. Marks : 50

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- Notes : 1. All questions are compulsory and carry equal marks.
2. Draw diagrams wherever necessary.

1. Describe theory of Biogenesis with experimental proof from any three scientists. **10**

OR

a) Write Robert Koch contribution in short in development of Microbiology. **2½**

b) Describe any three applied branches of microbiology. **2½**

c) Write note on contribution of M. Beijerinck and S. Winogradsky. **2½**

d) Write note on chicken cholera experiment of Louis Pasteur. **2½**

2. Describe process of endospore formation in bacteria in detail. **10**

OR

a) Write note on 70s ribosome. **2½**

b) Give general characteristics of prokaryote. **2½**

c) Write note on structure of flagella in gram negative bacteria. **2½**

d) Describe fluid Mosaic Model of cytoplasmic membrane. **2½**

3. Describe genetic relatedness method of bacterial classification. **10**

OR

a) What is intuitive method of bacterial classification. **2½**

b) Write note on four kingdom system of bacterial taxonomy. **2½**

c) Describe Bergey's manual of determinative bacteriology in short. **2½**

d) Describe Numerical taxonomy method of bacterial classification. **2½**

4. Describe sexual methods of reproduction in fungi in detail. **10**

OR

- a) Describe structure of T₄ Bacteriophage. 2½
- b) Give general characteristics of viruses. 2½
- c) Write note on Archaeobacteria. 2½
- d) Write any one method of Animal virus cultivation. 2½

5. Solve any ten.

- a) What is Attenuation. 1
- b) Who discovered the techniques of cotton pluggin in Microbiology. 1
- c) Give the name of three vaccines invented by Louis Pasteur. 1
- d) Give any two examples of endospore producing bacteria. 1
- e) What are Gas Vacuoles. 1
- f) What is Mesosome. 1
- g) Define Strain. 1
- h) Who proposed two kingdom system of bacterial classification. 1
- i) What is r-RNA homology. 1
- j) What are Methanogens. 1
- k) Write economic importance of Archaea. 1
- l) Define Virus. 1
