

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

P. Pages : 2

Time : Three Hours



GUG/W/24/11558

Max. Marks : 50

1. What is biogenesis? Explain various experiments proving biogenesis concept. **10**

OR

- a) Various branches of Microbiology. **2½**
- b) Give an account on scope of microbiology. **2½**
- c) Discuss contributions of Louis Pasteur. **2½**
- d) Discuss Koch's postulates. **2½**

2. Discuss in detail about structure Gram positive bacterial cell wall. **10**

OR

- a) Differentiate between prokaryotic and eukaryotic cell. **2½**
- b) Write a note on fluid mosaic model for cell membrane. **2½**
- c) Write a brief account on arrangement flagella in bacterial cell. **2½**
- d) Discuss structure of endospore in brief. **2½**

3. What is Taxonomy? Discuss in detail about five kingdom system of classification. **10**

OR

- a) Describe general criteria used for bacterial classification. **2½**
- b) Write a note on natural system of classification. **2½**
- c) Give a brief account on intuitive method of bacterial classification. **2½**
- d) Write a note on DNA homology. **2½**

4. Explain in detail about viral reproduction through lytic cycle. **10**

OR

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| a) Give general characteristics of viruses. | 2½ |
| b) Write a note on LHT system of classification. | 2½ |
| c) Write a note on chick embryo method for viral cultivation. | 2½ |
| d) Write a note on fragmentation mode of asexual reproduction in fungi. | 2½ |

5. Solve any ten (1 mark each) 10

- a) Who is termed father of modern microbiology.
- b) What is abiogenesis.
- c) What is exobiology?
- d) What is the principle component of bacterial cell wall.
- e) What are Plasmids.
- f) Give the example of endospore producing bacteria.
- g) What is species.
- h) Who proposed two kingdom system.
- i) What is numerical taxonomy.
- j) What are Methanogens.
- k) What is prophage.
- l) Write any two methods of asexual reproduction in fungi.
