

Barkatullah University (Open book) ATKRT Examination

December 2020

M.Sc Semester - 1 MICROBIOLOGY

Paper - I - MB-101 - General Microbiology

Max. Marks - 85 (17 x 5)

Note: All 5 questions are compulsory.

- Q. 1. Discuss physical Methods of sterilization.
 - Q. 2. Explain with diagram Ultra structure of bacterial cell and properties of cell components.
 - Q. 3. Write a brief note on preservation of microbial culture.
 - Q. 4. Write an essay on bacteriophage.
 - Q. 5. Discuss general characters and reproduction of protozoa.
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Paper - II - MB-102 - MICROBIAL BIOCHEMISTRY

MM = 85 (17 x 5)

Note: All 5 questions are compulsory.

- Q. 1. Describe structure and biological importance of polysaccharides.
- Q. 2. Explain lipoprotein classification and their role in cell functions.
- Q. 3. Write an essay on amino acid structure and properties.
- Q. 4. Explain with relevant example types of enzyme inhibition.
- Q. 5. Discuss chemistry and properties of fat soluble vitamins.

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Paper - III - MB-103 - MICROBIAL GENETICS

MM = 85 (17x5)

Note: All 5 questions are compulsory.

- Q1. Discuss with diagram DNA Replication.
 - Q2. Write a detail note on DNA Repair mechanisms.
 - Q3. Discuss transcription process and its control.
 - Q4. Explain with diagram working of Lac - Operon.
 - Q5. Discuss conjugation method of gene transfer and its applications.
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M₂ Sc semester - 1 MICROBIOLOGY

Paper - IV - MB-104 - Biostatistics, Instrumentation
and Computer proficiency

MM = 85 (17x5)

Note: All 5 questions are compulsory.

- Q1. Explain with diagram Electron Microscopy and its application.
 - Q2. Discuss different types of centrifugation techniques and their application.
 - Q3. Explain with examples and diagrams immunoelectrophoresis and its applications.
 - Q4. Discuss chi square test and its significance.
 - Q5. Write a brief note on MS-Office software and its uses.
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