

B.Sc. Semester - 2 (CBCS) Examination
June/July-2022 [OLD COURSE]
MICRO-BIOLOGY (CORE)

Time: 2:30 Hours**Marks: 70****Instructions:**

1. All questions are compulsory.
 2. Figures to the right indicate marks.
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Q.1

- A. Objective type questions. (04)
1. Define: pH.
 2. Draw the structure of water.
 3. Enlist the various types of bond in chemical reaction.
 4. Enlist various type of elements essential for life.
- B. Answer in brief. (Any 1 out of 2) (02)
1. Write the properties of buffer.
 2. Brief note on atom.
- C. Answer in detail. (Any 1 out of 2) (03)
1. Molecular and chemical bond.
 2. Detail in essence of biochemistry for microbiologist.
- D. Write a note on. (Any 1 out of 2) (05)
1. Properties of water.
 2. Various types of buffer.

Q.2

- A. Objective type questions. (04)
1. Define: carbohydrates.
 2. Draw the structure of ATP.
 3. Write the full form of RNA.
 4. Cellulose is oligosaccharide. (True/False)
- B. Answer in brief. (Any 1 out of 2) (02)
1. Draw the structure of glucose.
 2. Draw the basic structure of lipid.
- C. Answer in detail. (Any 1 out of 2) (03)
1. Explain alpha helix and beta sheets.
 2. Draw the well labelled structure of DNA.
- D. Write a note on. (Any 1 out of 2) (05)
1. Classification of carbohydrates.
 2. Classification of lipid.

Q.3

- A. Objective type questions. (04)
1. Define: Enzyme.
 2. Explain: Enzyme Activity.
 3. Enzyme can work in any temperature. (True/False)
 4. _____ scientist give the term enzyme.

- B. Answer in brief. (Any 1 out of 2) (02)
1. Nomenclature of enzyme.
 2. Regulation of enzymes synthesis.
- C. Answer in detail. (Any 1 out of 2) (03)
1. Inhibition of enzyme activity.
 2. Difference between prokaryotic and eukaryotic enzyme regulation.
- D. Write a note on. (Any 1 out of 2) (05)
1. Classification of enzyme.
 2. Chemical and Physical properties of enzyme.

Q.4

- A. Objective type questions. (04)
1. Define: Antiseptic.
 2. Uv light is widely used as chemical agent for microbial control. (True/False).
 3. What is phenol coefficient?
 4. Write the two name of chemical agents for microbial control.
- B. Answer in brief. (Any 1 out of 2) (02)
1. Difference between germicide and bactericide.
 2. Difference between sterilization and disinfectant.
- C. Answer in detail. (Any 1 out of 2) (03)
1. Selection of ideal antimicrobial agent.
 2. Characteristics of ideal antimicrobial agent.
- D. Write a note on. (Any 1 out of 2) (05)
1. Physical agents of microbial agent.
 2. Chemical agents of microbial agent.

Q.5

- A. Objective type questions. (04)
1. Define: Chemotherapy.
 2. Penicillin have cell wall inhibition activity. (True/False)
 3. Explain: Antibiotics
 4. Give the two name of microorganism produced antibiotics.
- B. Answer in brief. (Any 1 out of 2) (02)
1. Write two names of antibiotics which inhibited nucleic acid synthesis.
 2. How antibiotics damage to cytoplasmic membrane?
- C. Answer in detail. (Any 1 out of 2) (03)
1. Give the examples of antifungal, antiviral and antitumor agent.
 2. Characteristics of ideal chemotherapeutic agent.
- D. Write a note on. (Any 1 out of 2) (05)
1. Microbiological assay of antibiotics.
 2. Mode of action of inhibition of cell wall synthesis and protein synthesis.
