

B.Sc. Semester - 2 (CBCS) Examination
March/April - 2023 (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) Answer the following questions. (04)**
1. Define: Buffer.
 2. Elaborate the structure of water.
 3. Write various types of chemical bond.
 4. Which are the essential elements for life.
- Q.1(B) Answer the following question. (Any One) (02)**
1. Difference between Molecule and atom.
 2. Physical Properties of water.
- Q.1(C) Answer the following question. (Any One) (03)**
1. Chemical Properties of water.
 2. How biochemistry is essence for microbiologist?
- Q.1(D) Answer the following question. (Any One) (05)**
1. Explain: Molecular and chemical bond.
 2. Justify: Various types of buffers are used in biological Science.
- Q.2(A) Answer the following questions. (04)**
1. Define: Lipid.
 2. Draw the structure of RNA.
 3. Write the full form of DNA.
 4. Starch is Polysaccharide. (True/False)
- Q.2(B) Answer the following question. (Any One) (02)**
1. Draw the structure of Sucrose.
 2. Draw the basic structure of ATP.
- Q.2(C) Answer the following question. (Any One) (03)**
1. Draw the Flow chart of classification lipid.
 2. How to classify amino acid on the base of various properties.
- Q.2(D) Answer the following question. (Any One) (05)**
1. Various Structure of Protein.
 2. Write the short note on polysaccharides.
- Q.3(A) Answer the following questions. (04)**
1. Define: Enzyme activity.
 2. Explain: Apo Enzyme.
 3. Enzyme can work at optimum temperature. (True/False)
 4. Enzyme term is given by which scientist.
- Q.3(B) Answer the following question. (Any One) (02)**
1. Write the chemical Properties of enzyme.
 2. Regulation of enzymes activity.

- Q.3(C) Answer the following question. (Any One) (03)**
1. Explain various Characterization of Enzyme.
2. Mechanism of enzyme synthesis.
- Q.3(D) Answer the following question. (Any One) (05)**
1. Nature and mechanism of enzyme activity.
2. Types enzyme inhibitions.
- Q.4(A) Answer the following questions. (04)**
1. Define: Disinfectant.
2. Iso propanol is widely used as chemical agent for microbial control. (True/False).
3. What is Microbial control?
4. Write the two names of Physical agents for microbial control.
- Q.4(B) Answer the following question. (Any One) (02)**
1. Difference between bactericidal and Bacteriostasis.
2. Difference between sterilization and Antiseptic.
- Q.4(C) Answer the following question. (Any One) (03)**
1. Write the role and mode of action of gaseous sterilization.
2. Which are the properties of ideal antimicrobial agent.
- Q.4(D) Answer the following question. (Any One) (05)**
1. How to select ideal antimicrobial agent?
2. Phenol coefficient methods for the evaluation of chemical antimicrobial agents.
- Q.5(A) Answer the following questions. (04)**
1. Explain: Antibiotics.
2. Penicillin is narrow spectrum antibiotics. (True/False)
3. Explain: Broad spectrum antibiotics
4. _____ Scientist first time found penicillin antibiotics.
- Q.5(B) Answer the following question. (Any One) (02)**
1. Write two names of antibiotics which inhibited protein synthesis.
2. How antibiotics damage to Cell wall?
- Q.5(C) Answer the following question. (Any One) (03)**
1. Give the any three names of antibiotics.
2. Write the difference between chemotherapeutic agents and Chemotherapy.
- Q.5(D) Answer the following question. (Any One) (05)**
1. Short not on non-medical use of antibiotics.
2. Which are the characteristics of ideal chemotherapeutic agent?
