

B.Sc. Semester - 1 (CBCS) Examination
Oct/Nov-2023 (Syllabus Year - 2016)
BIO-TECHNOLOGY(CORE)

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

1. All questions are compulsory.
 2. Figures to the right indicate marks.
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- Que.1(A) Answer the following. (Any one Out of Two) (07)
1. Write the applications of Biotechnology.
2. Short note on recombinant DNA technology.
- Que.1(B) Attempt any one. (Out of Two) (04)
1. Discuss: Current Status of Biotechnology.
2. Explain: Future of Biotechnology in Developing World.
- Que.1(C) Attempt any three. (Out of Five) (03)
1. Define: Biotechnology.
2. Write the Social Impacts of biotechnology.
3. Write two Ethical impacts of biotechnology.
4.is a product of Biotechnology. (Vaccine/Bonvita)
5. National Center for Biotechnology Information (NCBI) Proposed the Term Biotechnology. (True/False)
- Que.2(A) Answer the following. (Any one Out of Two) (07)
1. Write difference between plant and animal cell.
2. Discuss in detail: Ultrastructure and Function of Prokaryotic cell.
- Que.2(B) Attempt any one. (Out of Two) (04)
1. Describe in short: Origin and Evolution of Cell.
2. Give the Ultrastructure and Function of bacteriophage.
- Que.2(C) Attempt any three. (Out of Five) (03)
1. Define: Cell.
2. Write the chemical composition of cell.
3. List three microscopic techniques for study of cell.
4. Chloroplast is mostly present in bacteria. (True/False)
5. Virus are classified as _____. (Akaryotic, Prokaryotic)
- Que.3(A) Answer the following. (Any one Out of Two) (07)
1. Explain in detail: Ultrastructure and Function of Mitochondria.
2. Explain in brief: Ultrastructure and Function of Cell Wall.
- Que.3(B) Attempt any one. (Out of Two) (04)
1. Write the brief about Lysosomes.
2. Short note on Golgi Bodies.
- Que.3(C) Attempt any three. (Out of Five) (03)
1. Explain: Ribosomes.
2. Give the full form of RER.
3. Write the function of Peroxisomes.
4.enzyme is present in Lysosomes.
5. Write the one difference between Cell wall and Cell membrane.
- Que.4(A) Answer the following. (Any one Out of Two) (07)
1. Explain: Various stages of Mitosis.
2. Explain Meiosis and its various phases.
- Que.4(B) Attempt any one. (Out of Two) (04)
1. Explain in short: Nucleus.
2. Short note on cell cycle.

- Que.4(C) Attempt any three. (Out of Five) (03)
1. Define: Chromosomes.
 2. Draw the structure of chromosome.
 3. Name the two key factor which regulate the cell cycle.
 4.and.....coined the term “Meiosis”.
 5. During the cell division, the spindle fibres attached to the chromosome at a region called kinetochore. (True/False)
- Que.5(A) Answer the following. (Any one Out of Two) (07)
1. Discuss: Types of Flagella.
 2. Write the detailed note on Cell – Cell Interaction.
- Que.5(B) Attempt any one. (Out of Two) (04)
1. Write in short: Amoeboid.
 2. Give the basic overview of Stem cells.
- Que.5(C) Attempt any three. (Out of Five) (03)
1. Define: Cancer.
 2. Explain function of Cilia.
 3. What is Cytoskeleton of cell?
 4. Write any three cell Locomotion organelles.
 5. Basic Difference between Cytoplasm and periplasm.
