

B.Sc. Semester - 1 (CBCS) Examination
Oct/Nov-2024 (As Per Syllabus Year June-2018)
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 a detail account on recombinant DNA technology.
 - (2) Discuss in detail- Applications of agricultural biotechnology.
- Que.1(B) Attempt any one. (04)
- (1) Future of biotechnology in developing world.
 - (2) Environmental biotechnology.
- Que.1(C) Attempt any three. (03)
- (1) Full form of DNA.
 - (2) Write any one social impact.
 - (3) Mention one importance of biotechnology.
 - (4) Define: Biotechnology.
 - (5) What is social Impact in Biotechnology.
- Que.2(A) Answer the following. (Any one out of two) (07)
- (1) Discuss in detail about microscopic techniques for study of cell.
 - (2) Comparison of plant, animal and prokaryotic cell.
- Que.2(B) Attempt any one. (04)
- (1) Function of prokaryotic cell.
 - (2) Chemical composition of cell.
- Que.2(C) Attempt any three. (03)
- (1) Animal cell contain cell wall. (True/False).
 - (2) Define: Evolution.
 - (3) Mention one example of smallest cell.
 - (4) Plant cell have protoplasm. (True/False).
 - (5) All virus possesses enveloped. (True/False).
- Que.3(A) Answer the following. (Any one out of two) (07)
- (1) Explain- Mitochondria is known as a power house of cell.
 - (2) Discuss in detail about ribosomes.
- Que.3(B) Attempt any one. (04)
- (1) Plasma membrane.
 - (2) Lysosomes.
- Que.3(C) Attempt any three. (03)
- (1) Smooth endoplasmic reticulum have ribosome on their surface. (True/False).
 - (2) Importance of chloroplast.
 - (3) Full form of RER.
 - (4) Cell wall is protective layer for cell. (True/False).
 - (5) Roll of peroxisomes.
- Que.4(A) Answer the following. (Any one out of two) (07)
- (1) Write a note on overview of cell cycle.
 - (2) Discuss in detail about structure of chromosome.

- Que.4(B) Attempt any one. (04)
- (1) Meiosis.
 - (2) Write a short note on nucleus.
- Que.4(C) Attempt any three. (03)
- (1) There are types of histones in most eukaryotic cells (Four/ Five)
 - (2) Define: Nucleosome.
 - (3) The cell cycle is the complete sequence of events extending from formation of a new cell through the next division. (True/False).
 - (4) Two diploid daughter cell are produced in..... (Mitosis / Meiosis)
 - (5) All cell have nucleus. (True/False).
- Que.5(A) Answer the following. (Any one out of two) (07)
- (1) Give a detail note on cancer biology.
 - (2) Discuss in detail about cytoskeleton.
- Que.5(B) Attempt any one. (04)
- (1) Write a short note on flagella.
 - (2) Amoeboid cell locomotion.
- Que.5(C) Attempt any three. (03)
- (1) Define: Cancer.
 - (2) Importance of stem cell.
 - (3) Mention one difference between flagella and cilia.
 - (4) Define: Lymphoma.
 - (5) Write-down name of one cell locomotion organ.
