



BBD-003-001110

Seat No. _____

B. Sc. (Sem. I) (CBCS) Examination

July - 2021

**BT - 101 : Introduction to Biotechnology
and Cell Biology
(Old Course)**

Faculty Code : 003

Subject Code : 001110

Time : $2\frac{1}{2}$ Hours]

[Total Marks : 70

- Instructions :** (1) All Questions are Compulsory
(2) Figures on right side indicates marks
(3) Draw the figure wherever necessary
(4) Write answers of all the questions in main answer sheet

1 All questions compulsory : 20

- (1) Phagmid is made up of recombining _____ and _____
- (2) Who gave concept of allele?
- (3) Write any two Biotechnology based product.
- (4) Who postulated cell theory?
- (5) 1meter = _____ micron
- (6) _____ stains the gram positive cell wall.
- (7) Peptidoglycan content is _____ than lipid in gram negative organism.
- (8) TEM and SEM stand for _____ and _____
- (9) Plasma membrane is made up of which biomolecules?
- (10) Suicidal bags of cell are _____
- (11) Mitochondria produces _____ for the cell
- (12) Which enzymes are present in peroxisomes?

- (13) At the end of mitosis _____ number of daughter cells are produced.
- (14) Linker protein in nucleosome is _____
- (15) State phases of cell cycle.
- (16) Crossing over occurs in which stage of cell division?
- (17) _____ helps for locomotion in cell.
- (18) In an adult human being stem cells are found in which part of body?
- (19) Cancer causing agents are known as _____
- (20) Flagellin is present in _____

- 2 (A) Answer Any Three : 6**
- (1) Give definition of biotechnology
 - (2) Define the term cell?
 - (3) What is thy lakoid ?
 - (4) Write types of histones.
 - (5) Define cancer?
 - (6) What is cytokinesis?
- (B) Answer Any Three : 9**
- (1) Write a note on ethical impacts of biotechnology
 - (2) Write a note on morphology of cell.
 - (3) Give an account on peroxisomes
 - (4) Explain nucleosome
 - (5) Write details of giant chromosome
 - (6) Draw structure of flagella
- (C) Answer Any Two : 10**
- (1) Give details of Cell-cell interaction
 - (2) Draw detail labeled diagram of mitosis
 - (3) Explain Cell wall
 - (4) Write a note on Electron microscopy
 - (5) Applications of Biotechnology in the field of medicine

- 3 (A) Answer Any Three : 6**
- (1) What is metastasis?
 - (2) Define chiasma..
 - (3) What happens in S phase?
 - (4) Write functions of ribosomes.
 - (5) Explain monochrome staining
 - (6) What is rDNA technology?
- (B) Answer Any Three : 9**
- (1) Write applications of Biotechnology in field if environment
 - (2) Explain cell theory
 - (3) Write functions of plasma membrane
 - (4) Explain meiosis I
 - (5) Write a note on glyoxisomes
 - (6) Write a note on hematopoietic stem cells
- (C) Answer Any Two : 10**
- (1) Applications of Biotechnology in the field of Agriculture
 - (2) Detailed structure of eukaryotic cell
 - (3) Give details of chloroplast
 - (4) Explain Ultrastructure of plasma membrane and its functions.
 - (5) Write about types of cancer and oncogenes
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