



A Charutar Vidya Mandal's Institution
V.P. & R.P.T.P. SCIENCE COLLEGE
 (AUTONOMOUS) (Grant-in-Aid)
 Affiliated to Sardar Patel University
 VALLABH VIDYANAGAR-388120



Master of Science (Semester II) Internal Examination - 2026
PS02MAZOO01(Cell biology)

Date:06/03/2026 Day: Friday

Time: 10:45 am to 12:15 pm

Total marks :30

Q.1 Write the most appropriate answer from the following multiple-choice questions.

[06]

1. What is the function of proteins in cell membranes?
 A. Cellular transport
 B. Photosynthesis
 C. Cellular respiration
 D. None of the above
2. Endocytosis includes:
 A. Phagocytosis
 B. Pinocytosis
 C. Receptor-mediated endocytosis
 D. All of the above
3. Which motor protein moves cargo toward the minus end of microtubules?
 A. Dynein
 B. Kinesin
 C. Myosin
 D. Clathrin
4. Chromosomes align at the equatorial plate during
 A. Prophase
 B. Metaphase
 C. Anaphase
 D. Telophase
5. Loss of contact inhibition is a property of
 A. Normal cell
 B. Transformed cells
 C. Stem cells
 D. Germ cells
6. Tumor suppressor gene involved in apoptosis regulation is:
 A. RAS
 B. MYC
 C. ABL1
 D. p53



Q.2 Write a note on cell junction and their types.

[06]

OR

Q.2 Write a note on : cell transportation mechanism

[06]

Q.3 Write a note on microfilaments and their organization.

[06]

OR

Q.3 Explain coated vesicles and receptor-mediated endocytosis.

[06]

Q.4 Write a note on regulation of cell cycle

[06]

OR

Q.4 Give a general description of mitosis with suitable diagrams.

[06]

Q.5 What is programmed cell death? Describe the extrinsic (death receptor) pathway of apoptosis

[06]

OR

Q.5 Define Cancer and Classify the different types of cancer

[06]

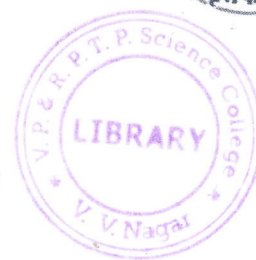


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MSC (Semester 2) Quiz - 2026
PS02MAZOO01 (CELL BIOLOGY)

Date: 06/03/2026 Day: Friday

Time: Maximum 20 minutes

Total marks :15

Q-1 Fill in the blanks with appropriate answer given in the bracket.

[08]

- (i) In animal cell, gap junction are made of _____ (Connexins, Actin).
- (ii) Cell recognition is mainly mediated by membrane _____.
(Glycoproteins / Phospholipids)
- (iii) Tight junctions prevent _____ of substances between cells. (Leakage / Synthesis)
- (iv) Peroxisomes contain the enzyme _____. (Catalase / Amylase)
- (v) The nuclear lamina is composed of _____ which provide structural support. (actin filament, intermediate filament)
- (vi) The mitotic spindle is made up of _____. (Microtubules / Microfilaments)
- (vii) The Bcl-2 family proteins regulate _____. (Apoptosis / Necrosis)
- (viii) Genes that promote cancer are called _____.
(Oncogenes / Tumor suppressor genes)

Q-2 Whether the following statement is true or false. Write your answer in the box

[07]

- | | | |
|--|---|---|
| (i) Cholesterol is absent in the plasma membrane of prokaryotic organisms. | [|] |
| (ii) Peripheral proteins are embedded within the lipid bilayer. | [|] |
| (iii) Intermediate filaments help maintain cell shape | [|] |
| (iv) Meiosis results in two haploid cell. | [|] |
| (v) Receptor-mediated endocytosis uses Clathrin-coated vesicles. | [|] |
| (vi) Cancer cells show contact inhibition. | [|] |
| (vii) Necrosis is a programmed process. | [|] |