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ZOS 453

**Second Semester M.Sc. Examination, September/October 2022
(CBCS)
ZOOLOGY
Molecular Cell Biology**

Time : 3 Hours

Max. Marks : 70

Instructions : 1) Answer *all* questions.
2) Give illustrations *wherever* necessary.

I. Write short notes on : (5×2=10)

- a) Cilia.
- b) cGMP.
- c) Centromere.
- d) S-phase.
- e) 3'polyadenylation.

II. a) Explain the ultrastructural organization of the animal cell. 12

OR

Write notes on :

- b) Davson-Danieli model.
- c) Microtubules.

III. a) Discuss various cell signal transduction mechanisms. 12

OR

Write notes on :

- b) Structure of Endoplasmic reticulum.
- c) Active transport.

P.T.O.



IV. a) Discuss the molecular organization of the chromatin. **12**

OR

Write notes on :

- b) Nuclear pore complex.
- c) Structure of ribosomes.

V. a) Give an account of mitotic apparatus and movement of chromosomes. **12**

OR

Write notes on :

- b) Apoptosis.
- c) Cell cycle.

VI. a) Explain the mechanism of transcription in eukaryotes. **12**

OR

Write notes on :

- b) Translation in prokaryotes.
 - c) Transformation experiment.
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