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SUBJECT CODE NO: - FNP-6222
FACULTY OF SCIENCE AND TECHNOLOGY
MSC. F.Y. (SEM-II) (NEP Pattern-2023-2024) Zoology
Examination November / December 2025
Cell and Molecular Biology - SAC165512T

[Time: 1:30 Hours]

[Max. Marks: 45]

Please check whether you have got the right question paper.

N. B

- 1) Attempt all questions
- 2) Illustrate your answer with suitable labeled diagram.

Q1 Multiple choice question:**10**

1. Short strands of primers are used in DNA replication.
 a) RNA b) DNA c) Protein d) Histone
2. Microfilaments are mostly involved in processes
 a) Activation b) Stimulation c) Degradation d) Motility
3. Which type of cell signaling molecules produce hormones?
 a) Intracrine ligands b) Autocrine ligands
 c) Both a & b d) Endocrine ligands
4. Cell signaling is generally
 a) Intracellular
 b) Intercellular
 c) Both a & b
 d) None of these
5. This is not a function of mitochondrion.
 a) Electron transport chain and associated ATP production
 b) Fatty acid breakdown
 c) Glycolysis and associated ATP production
 d) All of these

**Q2 Short notes (Solve any three)****15**

- a) Structure and functions of Lysosomes
- b) Organization of cytoskeleton
- c) RNA interference
- d) Heterochromatin

Q3 Long answer questions (Solve any two)

- Define cell cycle & elaborate the various checkpoints in cell cycle regulation.
- Explain the process of DNA replication
- Describe the process of eukaryotic transcription.

