

QP Code: 828006

Reg. No.....

Eighth Semester B. Pharm Degree Supplementary Examinations
October 2025
Cell and Molecular Biology
(2017 Scheme)

Time: 3 Hours

Max. Marks: 75

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*
- *Draw diagrams wherever necessary*

Essays

(2x10=20)

1. Compare and contrast prokaryotic and eukaryotic cells, highlighting their structural and functional differences.
2. Explain the processes of transcription and translation, emphasizing their roles in protein synthesis.

Short Notes

(7x5=35)

3. Write a short note on the history and applications of cell and molecular biology.
4. Discuss the properties of the cell membrane.
5. Describe the types of RNA and their functions.
6. Outline the structure of proteins and their classifications.
7. Explain the importance of positive control in protein synthesis.
8. Define mitosis and explain its stages briefly.
9. What are cell signals and why are they important.

Answer Briefly

(10x2=20)

10. Define cell theory.
11. What is the difference between DNA and RNA.
12. Name the phases of the cell cycle.
13. What is the role of amino acids in protein structure.
14. Define cellular checkpoints.
15. State the function of protein kinases.
16. What are transgenics.
17. List two chemical reactions significant to cellular functioning.
18. What is meiosis.
19. Name any Two types of signaling pathways.

CORRECTION / NO-CORRECTION FILE
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QPCODE: 828006

Dated: 27-10-2025

Question No.12

Replaced with "Define nucleosomes."

Corrections/Modifications/Replacement of Questions if any shall be made available to all students. Take the print out of the Correction File in such cases and distribute to all students.

(Sd/-)

CONTROLLER OF EXAMINATIONS