PAPER ID-310926

Subject Code: BP808ET

Roll No: | | | | | | | | | | | | | |

BPHARM
(SEM VIII) THEORY EXAMINATION 2023-24
CELL AND MOLECULAR BIOLOGY

TIME: 3 HRS **M.MARKS: 75**

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief. **10 x 2 = 20**

a.	Define the cell with example.
b.	Enlist two functions of cell membrane.
c.	Discuss the reverse transcription process.
d.	Classify the types of RNA.
e.	Explain the protein synthesis process.
f.	Write the differences between essential and nonessential amino acids.
g.	Define the Transgenesis.
h.	Write the differences between mitosis and meiosis.
i.	Define 'receptor'.
j.	Enlist types of G-protein involved in the cell signaling.

SECTION B

2. Attempt any *two* parts of the following: **2 x 10 = 20**

a.	Write the differences between Prokaryotic and Eukaryotic cell with well labelled diagram. Give the functions of Mitochondria and Endoplasmic reticulum.
b.	Describe the cell signaling pathways along with details of GPCR mechanism pathway.
c.	Explain the cell cycle and cellular activities and discuss the checkpoints of cell cycle.

SECTION C

3. Attempt any *five* parts of the following: **5 x 7 = 35**

a.	Explain the cellular reproduction in Prokaryotic and Eukaryotic cell.
b.	Elaborate various types of chemical foundations with examples.
c.	Discuss the central dogma of molecular biology and functions of DNA.
d.	Describe the structure and types of proteins and significance of protein synthesis.
e.	Write the various models of plasma membrane and describe the Fluid Mosaic model.
f.	Describe various phases of meiosis and their significance in cell division.
g.	Illustrate the types and functions of Protein-kinases.

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