Printed Pages: 01 **Sub Code: BP-808ET**

Paper Id: 232118 **Roll No.** | | | | | | | | | | |

B PHARM
(SEM VIII) THEORY EXAMINATION 2022-23
CELL AND MOLECULAR BIOLOGY

Time: 3 Hours ***Total Marks: 75***

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

SECTION A

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

a. Differentiate between prokaryotic and eukaryotic cell.
b. Define transgenic animals.
c. Classify various types of RNA.
d. Enlist the function of tRNA and rRNA.
e. Define centromere and genome.
f. What are chaperones?
g. Define genetics.
h. Write the functions of microtubules.
i. Enlist types of G-protein involved in cell transduction signaling.
j. Differentiate between active and passive transport across cell membrane.

SECTION B

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

a. Draw a well labelled diagram of eukaryotic cell. Enumerate the functions of Golgi bodies and Endoplasmic reticulum.
b. Explain the cell cycle in detail. Highlight the check points in cell cycle.
c. Discuss the GPCR mechanism of cell signaling.

SECTION C

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

a. Explain the types of cellular reproduction in prokaryotes and eukaryotes.
b. Summarize the process of protein synthesis.
c. Discuss the fluid mosaic model of cell membrane.
d. Write a detailed note on structure and types of proteins.
e. Discuss the Central Dogma of molecular biology.
f. Describe the different phases of mitosis and their significance in cell division.
g. Discuss the types and function of protein kinases.