Sub Code:MPL104T

Paper Id: 298104 Roll No:

B PHARM
(SEM I) THEORY EXAMINATION 2019-20
CELLULAR AND MOLECULAR PHARMACOLOGY

Time: 3 Hours *Total 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. Stages of cell cycle.

b. Types of immunotherapeutics.

c. cAMP as a secondary messenger.

d. Various types of gene transfer techniques.

e. Ligand gated ion channels.

f. Application of ELISA.

g. Proteomics.

h. Function of plasma membrane.

i. Which property of cell or particle can be measured by flow cytometry.

j. Cryopreservation

SECTION B

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

a. What do you mean by the term receptor? Discuss various intracellular signaling pathways of G protein coupled receptors.

b. Describe western blotting techniques with its application.

c. Discuss the various mechanisms that underlie the control of gene expression.

SECTION C

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

a. Discuss principle and application of flow cytometry.

b. Discuss different types of cell culture media.

c. Write a note on recombinant DNA technology and its application.

d. Discuss cell viability assay.

e. What is necrosis? Discuss types and mechanism of necrosis.

f. How polymorphism affect the drug metabolism?

g. Describe JAK/STAT pathway as a intracellular signaling pathway.