

M. PHARM. (PHARMACOLOGY) SEM – I (CBCS-2019 COURSE): WINTER – 2021
SUBJECT: CELLULAR AND MOLECULAR PHARMACOLOGY

Day : Thursday
Date : 18.11.2021 W2021-20741

Time: 10.00 A.M. To 1.00
Max. Marks: 75 P.M.

N.B.:

- 1) Attempt any **FIVE** questions from the following.
- 2) Figures to the right indicate **FULL** marks.

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- Q.1** a) Describe types and functioning of ligand gated ion channels (10)
b) Write a note on 'Cell cycle'. (05)
- Q.2** a) Describe the technique 'PCR'. Write its applications. (10)
b) What are 'Nuclear Receptors'? Add some examples. (05)
- Q.3** a) Write in detail about maintenance procedures and use of cell lines in molecular pharmacology. (10)
b) Write in detail about 'Programmed Cell Death'. (05)
- Q.4** a) How G-protein coupled receptors act? (10)
b) Write in brief about 'Gene Sequencing'. (05)
- Q.5** a) Write the principle and applications of Flow-cytometry. (10)
b) Write in detail about 'Types of ELISA'. (05)
- Q.6** Write short notes on (15)
a) Western Blot Technique
b) JAK/STAT pathway
c) Cell viability assay

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