

Code: 17S01104

M.Pharm I Semester Regular Examinations February 2018

**CELLULAR & MOLECULAR PHARMACOLOGY**

(Pharmacology)

(For students admitted in 2017 only)

Time: 3 hours

Max. Marks: 60

Answer all the questions

\*\*\*\*\*

- 1 Explain various steps involved in gene expression in eukaryotic cells with neat labeled diagram.
- OR**
- 2 Explain the intrinsic pathway of apoptosis and write the differences between apoptosis and necrosis.
- 3 Explain with examples, the cytosolic pathway of tyrosine kinase receptor activation.
- OR**
- 4 Enumerate different secondary messengers and explain their role in various cellular activities.
- 5 Enumerate the principle, application and steps involved in rDNA technology.
- OR**
- 6 Explain the principle and applications of Gel electrophoresis and real time PCR.
- 7 Explain the concept of pharmacogenomics and recent advances in the field of pharmacogenomics.
- OR**
- 8 Explain the applications of metabolomics and nutrigenomics.
- 9 Mention different types of cell culture media. Explain the principles and applications of flow cytometry.
- OR**
- 10 Explain the principles and applications of glucose uptake assay and calcium influx assay.

\*\*\*\*\*

UPIQP.BANK.COM