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Total No. of Pages : 01

Total No. of Questions : 06

M.Pharmacy (Pharmacology) (2017 & Onwards) (Sem.-1)**CELLULAR & MOLECULAR PHARMACOLOGY****Subject Code : MPL-104T****M.Code : 74678****Time : 3 Hrs.****Max. Marks: 75****INSTRUCTIONS TO CANDIDATES :**

1. Attempt any FIVE questions out of SIX questions.
2. Each question carry FIFTEEN marks.

1. Define gene expression. Explain its regulation. Discuss the importance of microRNA, gene mapping and gene sequencing.
2.
 - a. Write in brief note on genome organization.
 - b. What are the regulators of cell death? Explain the intrinsic and extrinsic pathways of apoptosis.
3.
 - a. Write a note on tyrosine kinase receptors.
 - b. Explain the following signaling pathways :
 - a. MAPK signaling
 - b. cAMP signaling pathway
4.
 - a. Explain the principle and applications of PCR.
 - b. Describe Western Blotting.
5.
 - a. What are the various types of vectors used in recombinant DNA technology? Explain.
 - b. What is gene therapy? Explain different techniques used for transferring the genes.
6.
 - a. Write the applications of proteomics.
 - b. What is the principle of cell viability assays? Explain glucose uptake assay. Write the applications of cell viability assays.

NOTE : Disclosure of Identity by writing Mobile No. or Marking of passing request on any paper of Answer Sheet will lead to UMC against the Student.