

**VINAYAKA MISSION'S RESEARCH FOUNDATION
(DEEMED TO BE UNIVERSITY), SALEM**

**M.PHARM. DEGREE EXAMINATION – JANUARY 2021
Second Semester**

**BRANCH: PHARMACOLOGY
PRINCIPLES OF DRUG DISCOVERY**

Time : Three hours

Maximum: 75 marks

**(Draw neat labeled diagrams wherever necessary
your answer should be specific to the questions asked)**

SECTION –A

I. Answer any **THREE** questions: **(3 x 15 = 45)**

1. Write elaborately on various methods and strategies involved in drug discovery process.
2. Write elaborately on computational methods for protein structure prediction and its application in drug design.
3. Discuss the structure and pharmacophore based approaches in rational drug design.
4. Write elaborately on molecular docking in drug discovery.

SECTION –B

II. Answer any **THREE** questions: **(3 x 10 = 30)**

5. Discuss role of transgenic animals in target validation.
6. Discuss the application of NMR and X-ray crystallography in protein structure prediction.
7. What is drug likeness screening. Add a note on Lipinski's rule of five for drug Likeness.
8. Write note on comparative molecular field analysis (CoMFA) and comparative molecular similarity Index Analysis (CoMSIA)