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Roll No.

Total No. of Pages : 01

Total No. of Questions : 06

M.Pharmacy(Pharmacology) (Sem.-2)
PRINCIPLES OF DRUG DISCOVERY

Subject Code : MPL-203T

M.Code : 74945

Date of Examination : 08-07-22

Time : 3 Hrs.

Max. Marks: 75

INSTRUCTIONS TO CANDIDATES :

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

1. a. Describe various methods used for target validation in the process of drug discovery. 7.5
b. Explain the role of genomics in the target discovery. 7.5
2. a. What is high throughput screening? Explain its role in lead identification. 5
b. Explain the role of Ramachandran plot in protein modeling. 5
c. Discuss the building of side chains of protein by X-ray crystallography. 5
3. a. What are various steps of pharmacophore mapping? Comment on Conformational space generation in it. 5
b. Name traditional methods used for drug designing. Comment on their limitations. 5
c. What is Lipinski's "rule of five"? 5
4. a. Discuss various sampling algorithms used in Docking analysis. 5
b. Discuss Free Wilson model of traditional QSAR. 5
c. Give brief account of electronic descriptors used in 2D-QSAR. 5
5. a. What is 3D-QSAR? What are its advantages over 2D-QSAR? 5
b. Comment on validation of CoMFA QSAR model. 5
c. Discuss contour analysis of CoMSIA model 5
6. a. Describe the applications of prodrug designing for : 10
i. Site specific drug delivery.
ii. Sustained drug action.
b. Discuss practical consideration for drug designing. 5

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