

Roll No.

Total No. of Pages : 01

Total No. of Questions : 08

M.Sc.(Ph. Chem) (Sem.-3)
DRUG DESIGN AND DEVELOPMENT
Subject Code : MSPC-205
Paper ID : [F0274]

Time : 3 Hrs.

Max. Marks : 80

INSTRUCTIONS TO CANDIDATES :

1. Attempt any FIVE questions out of EIGHT questions.
2. Each question carries SIXTEEN marks.

1. Describe the following :
 - a) Target based drug design 8
 - b) De Novo drug design 8
2.
 - a) What are the various database and information retrieval techniques used in *in silico* studies? 10
 - b) Briefly discuss *ab initio* method used CADD. 6
3.
 - a) Define peptidomimetics. Discuss the applications of oligonucleotides in antiviral and antitumoral chemotherapy. 8
 - b) Write a note on rational design for peptidomimetics. 8
4.
 - a) What is the significance of Craig plot and regression analysis in QSAR? 8
 - b) Discuss 2D and 3D analysis in QSAR. 8
5.
 - a) What are prodrugs? 6
 - b) Discuss about the application of prodrug approach in site specific drug delivery and prevention of presystemic metabolism 10
6. Write notes on following
 - a) Significance of Lipinski rule 7
 - b) Single and two compartment pharmacokinetics 9
7.
 - a) What is the role of charge transfer in drug action? 8
 - b) Write a note on carbohydrate based therapeutics. 8
8. Discuss briefly :
 - a) Importance of regression analysis in QSAR 8
 - b) Agonists and antagonists 8