


Name: Enrolment No:	
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**UNIVERSITY OF PETROLEUM AND ENERGY
STUDIES**

Online End Semester Examination, May 2020

Course: Drug Discovery and Development

Program: MSc

Course Code: HSCR7006

Semester: I

Time 03 hrs.

Max. Marks: 100

SECTION A

1. Each Question will carry 5 Marks

2. Instruction: Complete the statement / Select the correct answer(s)

S. No.	Question	CO
Q 1	The need of drug discovery is to a) _____ b) _____ c) _____ d) _____ e) _____	CO1
Q2	Protein target identification strategies are a) _____ b) _____ c) _____ d) _____ e) _____	CO2
Q3	Different stages in molecular docking method are a) _____ b) _____ c) _____ d) _____ e) _____	CO2
Q4	Most of the drugs interact with receptor through a) _____ b) _____ c) _____ d) _____ e) _____	CO1
Q5	Techniques used for lead identifications are a) _____ b) _____ c) _____ d) _____ e) _____	CO4
Q6	3D-QSAR studies include different physicochemical parameters including a) _____ b) _____ c) _____ d) _____ e) _____	CO3

SECTION B

1. Each question will carry 10 marks

2. Instruction: Write short / brief notes

Q 7	a) What is lead identification in drug discovery? b) What is the role of virtual screening for lead identification? c) Explain lipinski's rule.	CO1
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Q 8	a) Write down the different characteristics of drug target. b) What is the role of proteomics in target identification.	CO2
Q 9	a) What do you mean by rational drug design? b) How Cimetidine drug was discovered through rational drug design approach?	CO3
Q 10	a) What is QSAR? Explain the importance of QSAR for lead optimization. b) What is the difference between 2D-QSAR and 3D-QSAR study?	CO3
Q 11	a) Discuss the importance of homology modelling? b) Briefly describe the method of homology modelling of a targeted protein.	CO4
Section C		
1. Each Question carries 20 Marks. 2. Instruction: Write long answer.		
Q12	a) Write down a flow chart of a drug discovery cycle. b) Describe the role of si RNA for target validation process. c) Write a short note on transgenic animals. OR a) What is pharmacophore mapping? b) Describe the method of pharmacophore mapping. c) Illustrate the advantage and disadvantages of pharmacophore mapping.	CO4