Exam Date & Time: 18-Jul-2022 (10:00 AM - 01:00 PM)

MANIPAL ACADEMY OF HIGHER EDUCATION

Manipal Academy of Higher Education, Manipal MPharm Theory End-Semester Examinations.

Principles of Drug Discovery [PHA-MPL203T]

Marks: 75   **Duration: 180 mins.**

SECTION - A

Answer all the questions.

Answer the following (10 marks x 5 = 50 marks)

1)	Outline the process of modern drug discovery process. Describe the role of SiRNAs in drug discovery.	(10)
2)	Discuss the principle and process involved in the protein structure prediction	(10)
3)	With illustrations, describe the steps in the virtual screening of molecules.	(10)
4)	Explain main types of docking modes used to screen ligands with their significance.	(10)
5)	With examples explain bioprecursor and mutual prodrugs.	(10)

SECTION - B

Answer all the questions.

Answer the following (5 marks x 5 = 25 marks)

6)	How are the mechanisms of Parkinson's disease linked to pathological alpha-synuclein? What are its implications as a new target for drug discovery.	(5)
7)	Define combinatorial chemistry. What is its applications in lead identification.	(5)
8)	Compare and contrast the traditional and rational drug discovery	(5)
9)	What are the different parameters involved in docking-based scoring?	(5)
10)	Describe various parameters for QSAR.	(5)

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