Question Paper

MANIPAL ACADEMY OF HIGHER EDUCATION

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

Principles of Drug Discovery [PHA-MPL203T -S1]

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

SECTION - A

Answer all the questions.

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

1)	How are the mechanisms of Parkinson's disease linked to alpha-synuclein? What are its implications as a new target for drug discovery? Illustrate the process of evolution of a drug target.	(10)
2)	With examples, discuss the traditional drug discovery methods. Compare the traditional and rational drug design.	(10)
3)	Describe the protein structures. Discuss the role of NMR and X-Ray crystallography.	(10)
4)	Discuss the significance of high throughput screening in lead identification and validation.	(10)
5)	Explain the role of Hansch analysis and its importance in drug design with suitable illustrations. Discuss the role of electronic and steric factors in drug design.	(10)

SECTION - B

Answer all the questions.

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

6)	Describe the databases used in bioinformatics.	(5)
7)	With suitable examples, discuss the pharmacophore-based drug design.	(5)
8)	Describe the term drug-likeness with a suitable example.	(5)
9)	Explain the steps involved in rigid docking.	(5)
10)	Briefly describe the procedure involved in protein (receptor) - ligand docking.	(5)

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