

**Duration: 2 1/2 hours****Total marks: 60****Note:**

- 1) All questions are compulsory.
- 2) Draw diagram where necessary.
- 3) Answer to every new questions must be written on new page.

**Q.1**

- a) Delivery of drugs by a proper system is important. Justify 7
- b) How can we use liposomes for the process of drug delivery? Explain. 8

**OR**

- c) Write a note on Dendrimers as drug delivery system. 7
- d) Explain the field of biomedical micro and Nano technology. 8

**Q.2**

- a) Differentiate classical and reverse Pharmacology. 8
- b) Give the significance of orphan GPCRs 7

**OR**

- c) Orphan receptors are an attractive set of future target for medical needs. Justify 8
- d) Reverse pharmacology had led to a great uplift or shift for drug delivery. Explain 7

**Q.3**

- a) Explain the process of protein ligand interaction. 8
- b) Write a note on Comparative molecular similarity index analysis. 7

**OR**

- c) Give a historical overview of QSAR technique. 8
- d) Explain the significance and steps of QSAR. 7

Turn Over

**Q.4**

- a) What is NAMD? Give details of its advantages and applications. 8
- b) Describe HEX and give its significance. 7

**OR**

- c) Write a note on Auto-Dock 8
- d) Discovery studio visualize has optimized our drug discovery process. Justify 7

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