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**PY-804(B)****B. Pharm. VIII Semester**

Examination, June 2017

**Drug Discovery and Development****(Elective - I)****Time : Three Hours****Maximum Marks : 70**

**Note:** i) Attempt any five questions.  
 ii) All questions carry equal marks.

1. Explain the term 'Lead molecule'. Discuss various lead modification approaches with suitable example. 14
2. What do you mean by 'QSAR'? Discuss in detail Hansch analysis and Free Wilson analysis. 14
3. Explain the term 'Structure Based Drug Design' (SBDD) and Ligand based drug design (LBDD). Discuss 'SBDD' with suitable example. 14
4. Define 'Molecular Modeling'. Write principle involved in 'Molecular Modeling'. Discuss about commercial software available and their applications in drug discovery. 14
5. What is 'Molecular and Quantum Mechanics? Discuss Molecular Mechanics. 14
6. Discuss various theories of 'Drug-receptor' interaction. 14

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7. Explain the term 'Bioinformatics'. Write applications of Bioinformatics in drug discovery. 14
8. Write note on: 14
  - a) Virtual screening.
  - b) Historical perspective of drug discovery.

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