

- NB: (1) Question **No.1** is **compulsory**
(2) Attempt any **three** questions out of remaining **five** questions
(3) Each question carries **equal** marks
(4) **Illustrate** answers with **sketches** wherever required

1. Write Short Notes on: (20)
 - a) Molecular Mechanics
 - b) Quantum Mechanics
 - c) Cartesian Co-Ordinates
 - d) Chaperones
2. a) Explain different steps of Pharmacophore Optimization. (10)
b) Define Prodrugs. Classify them according to their function. (10)
3. a) Explain the role of Interoperability in Bioinformatics with suitable example. (10)
b) Explain and classify Machine Learning with examples. (10)
4. a) Explain UMLS and its different parts (12)
b) What are Endogenous compounds? How can they be used as drugs. (08)
5. a) Explain CORBA and its applications. (10)
b) Explain Genetic Algorithm in detail. (10)
6. a) Explain the following: (20)
 - i) XML
 - ii) Types of Docking
