

**PARUL UNIVERSITY**  
**FACULTY OF PHARMACY**  
**B.Pharm. Summer 2018-19 Examination**

**Semester: 8****Subject Code: 08101451****Subject Name: Pharmaceutical Chemistry-X****Date: 01/04/2019****Time: 10:00 AM TO 01:00 PM****Total Marks: 75****Instructions:**

1. Figures to the right indicate full marks.
2. Make suitable assumptions wherever necessary.

**Q.1 Essay type Questions. (Any 2 out of 3) (10 marks each) (20)**

1. Discuss the various methods to calculate the physicochemical parameters of QSAR.
2. Write Classification, SAR, mechanism of action and use of Anti-hyperlipidemic agents.
3. Write Classification, SAR, mechanism of action and use of Thiazide and Loop Diuretics.

**Q.2 Short Essay type Questions. (Any 7 out of 9) (5 marks each) (35)**

1. Discuss Chemistry of ACE inhibitors.
2. Write a note on beta blockers used in hypertension treatment.
3. Discuss SAR of cardiotonic agents in detail.
4. Discuss SAR of HMG Co-A reductase inhibitors.
5. Write brief note on Combinatorial Chemistry.
6. Discuss High-Throughput Screening (HTS) in detail.
7. Discuss selective optimization of side activities (SOSA) approach.
8. Write a note on de novo drug design.
9. Define molecular docking and discuss the various docking methods in detail.

**Q.3 Answer in short. (2 marks each) (20)**

1. Write a brief note on nitrate derivative use for treatment of angina pectoris.
2. Write a brief note on Vasodilators.
3. Outline synthesis of Nitroglycerin.
4. Outline synthesis of Captopril.
5. Explain Free-Wilson analysis in brief.
6. Define pharmacophore with example.
7. Write full form of CoMFA and CoMSIA.
8. What are the various *in-silico* virtual screening tools used in drug design?
9. Explain Hansch Analysis in brief.
10. Outline synthesis of Amlodipine.