Second Semester M. Pharm Degree Regular/Supplementary Examinations November 2024

M.Pharm (Pharmaceutical Chemistry)

Paper III - Computer Aided Drug Design (MPC203T)

(Common for 2017 and 2019 Scheme)

Time: 3 Hours   **Total Marks: 75**

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*
- *Draw table/diagrams/flow charts wherever necessary*.

Essays   **(3x10=30)**

1. Explain in detail about various 3D-QSAR approaches and its advantages over 2D-QSAR

2. Explain fundamentals of QSAR in drug design. Add a note on QSAR Parameters related to chemical structure and biological Activity

3. Explain theory and applications of Molecular and Quantum mechanics in drug design

Short Notes   **(9x5=45)**

4. Elaborate the Hansch equation

5. Explain the concept of de-novo drug design

6. Write the principles of computer aided drug design

7. Explain free Wilson analysis and its importance

8. Briefly explain Lipinsky's Rule of five

9. Explain molecular docking of agents acting on enzymes. Dihydrofolate reductase and choline esterase

10. Write a short note on Virtual screening techniques

11. Write a note on the importance of prediction and analysis of ADMET properties in drug design

12. Explain fragment based Drug Design

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