Total No. of printed pages = 2

MPL 203 T

Roll No. of candidate | | | | | | | | | | |

2022

M.Pharm. 2nd Semester End-Term Examination

PRINCIPLES OF DRUG DISCOVERY

(New Regulation)

Full Marks – 75 Time – Three hours

The figures in the margin indicate full marks for the questions.

Answer any *five* questions. All questions carry equal marks.

1. Explain Target and lead with examples. Write about various sources of discovery of new chemical entities (NCEs). (15)

2. (a) Explain rational approach for drug design.

   (b) Explain in brief the role of proteomics in target identification. (8+7 = 15)

3. What is QSAR? Give advantages and disadvantages of QSAR. Explain the Model Validation technique mentioning LOO and LNO. Discuss about the CoSASA modelling using steroid backbone template. (1+4+5+5 = 15)

4. (a) Write a note on COMFA. (8+7 = 15)

   (b) How computer aided drug design is useful in new drug discovery and development.

5. (a) Describe the methods of lead optimization. (8+7 = 15)

   (b) What do you understand about De Novo drug design?

6. (a) Write a note on prediction of protein structure. (8+7 = 15)

   (b) Describe the process of Homogeneous Radioactive Bioassays (HRB) in High-Throughput Screening.

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7. Write a note on (8+7 = 15)

(a) Drug likeness screening.

(b) Pharmacophore (lead for drug structures) based screening.

8. (a) Write a principle involved in design of pro-drug. (8+7 = 15)

(b) Explain the term molecular docking.