Day : Monday

Time : 10:00 AM-01:00 PM

Date : 19-09-2022

S-20787-2022

Max. Marks : 75

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N.B.:

1) **Q. No.1** and **Q. No.5** are **COMPULSORY.** Out of remaining questions attempt **ANY TWO** questions from each section.

2) Answer to both the sections should be written in **SEPARATE** answer book.

3) Figures to the right indicate **FULL** marks.

SECTION-I

Q.1   Explain how pharmacological assay development enhances drug development. **(08)**

Q.2   Describe the different methods of identifying new lead molecules in drug discovery process. **(15)**

Q.3   Enumerate the difference traditional and rational drug discovery. Describe in detail pharmacophore based virtual screening. **(15)**

Q.4   Write short notes on **ANY TWO** of the following: **(15)**

   a) Role of bioinformatics in drug discovery
   b) Role of transgenic animals
   c) Protein structure

SECTION-II

Q.5   What is partial least square and its applications in QSAR **(07)**

Q.6   Explain in detail Hansch and Free Wilson models of QSAR with examples **(15)**

Q.7   How do you determine the binding site of protein structure? Describe rigid molecular docking of any one docking tool **(15)**

Q.8   Write short notes on **ANY TWO** of the following: **(15)**

   a) Practical considerations of prodrug design
   b) Absorption and distribution enhancement through prodrug design
   c) De novo drug design

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