M. PHARM. (PHARMACOLOGY) SEM –II
(CBCS- 2019 COURSE): Winter- 2021.
SUBJECT: PRINCIPLES OF DRUG DISCOVERY

Day: Wednesday
Date: 01-12-2021

Time 02:00 PM-05:00 PM
Max. Marks: 75

W-20787-2021

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 What do you main by pharmacophore? Describe the process of development of pharmacophore model. **(08)**

Q.2 **a)** What is Homology modeling and criteria for determining protein structure computationally? **(07)**

b) Explain the process of determination of protein structure by homology modeling. Highlight the quality check of built protein model **(08)**

Q.3 What is load in drug discovery process? Describe in detail with example the lead identification process. **(15)**

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

a) Different phases of clinical trials
b) Target identification and validation
c) Antisense Technology

SECTION-II

Q.5 What is prodrug concept? how prodrug helps in developing poorly soluble drugs **(07)**

Q.6 What are different statistical parameters considered in QSAR and describe their mathematical expressions. What are the differences between 2D and 3D QSAR **(15)**

Q.7 What do you mean by molecular docking and list out types? Write in detail scoring functions of docking tools. **(15)**

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

a) Physicochemical properties of QSAR
b) Hansch model with examples
c) Practical consideration of prodrug design

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