

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[BPHARM 0422]

APRIL 2022
(SEPTEMBER 2021 SESSION)

Sub. Code: 2083

B.PHARMACY DEGREE COURSE (SEMESTER EXAMINATIONS)

PCI Regulation 2017 SEMESTER VIII

PAPER VII - COMPUTER AIDED DRUG DESIGN

Q.P. Code: 562083

Time: Three hours

Maximum: 75 Marks

I. Elaborate on: Answer any TWO questions.

(2 x 10 = 20)

1. Elaborate the stages of *Denovo* drug design.
2. Explain Random and Non-random screening methods.
3. Explain the Biosteric replacement strategies with ring replacement.

II. Write notes on: Answer any SEVEN questions.

(7 x 5 = 35)

1. Tafts steric constant (E_s).
2. Discuss Clinical studies with the phases of clinical trials.
3. What is Bioisosterism? Classify them with examples.
4. Illustrate Linear Hansch model.
5. Explain Free-Wilson approach.
6. Applications of Pharmacophore.
7. Write a brief note on Flexible Docking.
8. ADME and biochemical Databases.
9. Explain Energy minimization method-non derivative method.

III. Short answers on: Answer ALL questions.

(10 x 2 = 20)

1. Rigid Docking.
2. Analog design and its goals.
3. What is COMFA?
4. Verloop Steric Parameter.
5. SAR Vs QSAR.
6. What is Partition Coefficient?
7. Post marketing monitoring.
8. *Invitro*, *Invivo* and *Silico* assays.
9. Structure of Isoniazid and Chloramphenicol.
10. Structure based virtual screening.
