

2015/24

Enrolment Number

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Winter, 2024

M.Pharm Semester Examination

COMPUTER AIDED DRUG DELIVERY SYSTEM

Course Code: MPH203T

Bina Chandra Central Library  
Girijani University  
Hatkhowapara, Azara, Ghy-17

Full Marks – 75

Time – 3 hours

*The figure in the margin indicates full marks for the questions.***I. Answer all the questions (Word limit : 100 words)**

(10 x 2 = 20)

1. Signify Quality by Design?
2. What is estimation in statistics? Classify estimation.
3. What are the ethics in use of computers?
4. What is Artificial Intelligence? What are its goals?
5. Differentiate AI and Robot?
6. What are the limitations of BCS based biowaivers?
7. What are the different levels of simulation of pharmacokinetics and pharmacodynamics?
8. What are the different processes involved before clinical data collection?
9. What is IVIVC?
10. What are different optimization parameters?

**II. Answer any seven questions (Word limit : 500 words)**

(7 x 5 = 35)

1. Distinguish independent and dependent variable? Explain it with the example of factorial design. (1+4)
2. Differentiate between descriptive and mechanistic model.
3. Write a note on legal protection of innovations.
4. Write a short note on model construction for orally administered drug.
5. What are the general checklist as per 21 CFR Part 11 for computer systems?
6. What are the different compartments as per ACAT model and how drug moves through these compartments?
7. Describe various transporters involved in drug disposition.

**III. Answer any two questions (Word limit : 1000 words)**

(2 x 10 = 20)

1. Write a note on history of computers in pharmaceutical research and development.
2. Write in detail about optimization technology and screening design.
3. Describe in brief about computer simulations for proteins, genes, isolated cells, tissues and organs.