



**DBY-MPH-203-T**      Seat No. \_\_\_\_\_

**M. Pharmacy (Sem. II) (W.E.F. 2017) Examination**

**July - 2022**

**MPH-203T : Computer Aided Drug Delivery System**

Time : 3 Hours]

[Total Marks : 75

**Instructions :** (1) Answer the following questions.

(2) Figure to the right indicate marks.

(3) Draw neat & clean diagrams as required.

**1**      Answer the following questions. **20**

(1) Define optimization enlist modeling techniques.

(2) What are the limitation of computational model for prediction of drug metabolism?

(3) Define : QbD. Give the advantages of QbD.

(4) What are the objectives of Statistical modelling.

(5) Give the advantages of optimal design.

(6) Enlist the advantages and disadvantages of full factorial design.

(7) Explain the term DoE. Enlist its application.

(8) Write equation for first order and second order models and explain the terms.

(9) Enlist different compartmental models.

(10) What is computational simulation? Enlist the type.

- 2** Answer the following questions. (any two) **20**
- (1) Write a short note on screening design.
  - (2) Describe the computer simulation for whole organism.
  - (3) Describe steps involved in QbD.
- 3** Answer the following questions. (any seven) **35**
- (1) Explain role computers in clinical development.
  - (2) Explain pharmaceutical applications, advantages and disadvantages. Computational fluid dynamics.
  - (3) Write a note on in vitro dissolution and in vitro-in vivo correlation.
  - (4) Write a note on AI.
  - (5) Discuss ICH Q8 guideline.
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