



DBY-MPH-203-T Seat No. _____

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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.
