PAT-MPH203-T   Seat No. _____

M. Pharm. (Sem. II) (W.E.F. 2017) Examination

August / September - 2020

MPH-203T : Computer Aided Drug Delivery System

Time : **3** Hours]   [Total Marks : **75**

1   Answer all the questions, each carry 2 marks :   **10×2=20**

    (1)   Describe the role of computer in clinical data collection and management.

    (2)   Briefly describe Optimal Design.

    (3)   Write a brief note on Confidence Regions.

    (4)   How drug distribution model is generated in computer?

    (5)   Describe : Fed vs. fasted state.

    (6)   What do you mean by artificial intelligence?

    (7)   Describe the impact of automation in pharmaceutical industries.

    (8)   What are the disadvantages of automation?

    (9)   Enlist different application of artificial intelligence in pharmaceutical industries.

    (10)   Briefly describe Biowaiver.

2   Answer any **two** out of three, each carry 10 marks :   **2×10=20**

    (1)   Describe in detail Computer Simulation of Whole Organism and Isolated Tissues.

    (2)   Write a detail note on optimization technology & Screening design.

    (3)   Describe following modelling techniques :

       (a)   hPEPT1,

       (b)   ASBT,

       (c)   OCT.

3 Answer any seven out of nine, each carry 5 marks : **7×5=35**

   (1) Give the overview of history of computers in pharmaceutical research and development.

   (2) Write a detailed note on QbD and its importance in pharmaceutical drug development.

   (3) How ICH Q8 guideline affect drug development?

   (4) Describe following models :

      (a) OATP;

      (b) BBB-Choline Transporter.

   (5) How Computers helps in Market analysis?

   (6) Describe process of computer aided development of pharmaceutical emulsion.

   (7) Describe in detail Parameter sensitivity analysis.

   (8) Describe Ethics of Computing in Pharmaceutical Research.

   (9) Describe Proteins and Genes models.

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