DBX-MPH-202-T

Seat No. _____

Master of Pharmacy (Sem. II) (WEF-2017) Examination

July - 2022

Advanced Biopharmaceutics and Pharmacokinetics Theory (MPH-202 T)

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: Dissolution. Give Noyes-Whitney equation.
(2) Give the different types of Dissolution Apparatus.
(3) Define: Bioavailability & Bio-equivalence.
(4) Enlist Mechanism of Drug Absorption.
(5) Write down the objective of Bioavailability.
(6) Enlist biopharmaceutic factors affecting drug bioavailability.
(7) Give the objective of bioavailability studies.
(8) Define: Biopharmaceutics & Pharmacokinetics
(9) Classify BCS classification of drug.
(10) Enlist different Factors affecting drug Absorption.

2 Answer the following questions : (ANY **TWO**) **20**

(1) Explain methods for the enhancement of dissolution and bioavailability of poorly soluble drugs.
(2) Explain Michaelis - Menten equation along with estimation of kmax and vmax.
(3) Describe One Compartment open model IV bolus administration with estimation of Pharmacokinetics Parameters.

3 Answer the following questions. (ANY **SEVEN**) **35**

(1) Discuss Residuals method for one compartment open model for extra vascular administration.

(2) Describe the methods for assessing bioavailability.

(3) Discuss the Pharmacokinetic and Pharmacodynamic of Proteins and peptides.

(4) Explain the Application of Pharmacokinetics in Modified-Release Dosage forms.

(5) Give detail note on Factors causing Non-linearity.

(6) Explain In vitro-in vivo correlation dissolution profile comparisons.

(7) Write down the difference between Compartment and Physiological Modelling.

(8) Explain Monoclonal antibodies.

(9) Discuss about In-vitro-in-vivo correlations.
