Code: 13R00702

R13

B.Pharm IV Year I Semester (R13) Regular & Supplementary Examinations November 2017
BIOPHARMACEUTICS & PHARMACOKINETICS

Time: 3 hours   Max. Marks: 70

PART – A
(Compulsory Question)
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1   Answer the following: (10 X 02 = 20 Marks)
    (a) Write a short note on pharmacodynamics.
    (b) Explain protein binding.
    (c) Give the significance of protein binding.
    (d) Write a short note on first pass effect.
    (e) Explain mechanism involved in glomerular filtration.
    (f) Write the difference between bioavailability and bioequivalence.
    (g) Write a short note on IVIVC.
    (h) Explain biological half life.
    (i) Write a note on elimination rate constant.
    (j) Write a short note on non-linear kinetics.

PART – B
(Answer all five units, 5 X 10 = 50 Marks)

UNIT – I

2   Explain different types of drug absorption. Write factors influencing drug absorption.
OR
3   Explain factors affecting drug distribution. Explain physiological barriers of drug diffusion.

UNIT – II

4   Write a note on pathways of drug metabolism. Explain phase I reactions.
OR
5   Explain enzyme induction and inhibition. Write a note on phase II reactions.

UNIT – III

6   Explain different types of bioavailability studies. Write in brief measurement of bioavailability.
OR
7   Explain in detail bio-equivalence and factors influencing bio-equivalence.

UNIT – IV

8   Write a note on pharmacokinetics. Explain one compartment open model for IV bolus.
OR
9   Explain in detail apparent volume of distribution. Explain the method of residuals.

UNIT – V

10   Derive Michaelis – Menten equation and give its significance.
OR
11   Write a note on concept of linearity and non-linearity. Explain in brief non compartmental models.

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