



**BIOPHARMACEUTICS AND PHARMACOKINETICS**

**(RS 2 & RS 3)**

**Q.P. CODE : 9283**

Your answers should be specific to the questions asked.

Draw neat labeled diagrams wherever necessary.

**LONG ESSAY (Answer any TWO)**

**2 X 20 = 40 Marks**

1. Explain how bioavailability can be determined from oral administration of solid dosage forms.
2. Discuss the application of pharmacokinetics in dosage form design.
3. Discuss the various in-vitro dissolution testing methods used in pharmaceutical product evaluation.

**SHORT ESSAY (Answer any FIVE)**

**5 X 10 = 50 Marks**

4. Illustrate the procedure for adjusting the dosage regimen of patients with renal impairment.
5. Give the schematic representations of various pharmacokinetic models.
6. Explain Michaelis-Menten equation.
7. Discuss the various drug excretion pathways.
8. Explain the various factors that influence drug metabolism.
9. Discuss the kinetics of drug-protein binding.

**SHORT NOTES**

**2 X 5 = 10 Marks**

10. Mention the importance of bioequivalence studies.
11. Mention the significance of drug protein binding in drug therapy.

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