**BIOPHARMACEUTICS AND PHARMACOKINETICS (BOP 472)**

**Section A**

1. What is sink condition?
2. Give example of drug transport through passive diffusion.
3. What is Ficks law of diffusion
4. Give formula for-
5. Elimination half life.
6. Clearance
7. Volume of distribution
8. Relative bioavailability
9. Give example of drug binds to human serum albumin.
10. Define volume of distribution.
11. Define bioequivalence.
12. What are compartment model?
13. Write down the Handerson Hasselbach equation.
14. Differtiate between active and passive transport.
15. Give example of drug transport through active transport.

**Section B**

1. What are different mechanism of transport? Discuss passive diffusion.
2. What are the different physichochemical factors affecting drug absorption.
3. Define volume of distribution. Explain Blood Brain Barrier.
4. What are the factors affecting drug distribution.
5. Derive Wagner Nelson method for determining absorption rate constant.
6. Write down the zero and first order kinetics for determining absorption rate constant.
7. Write note on different type of compartment models.
8. Define clinical pharmacokinetics and discuss its scope.
9. Write down the note on one comparmen t open model i.v. bolus administration.
10. Write down the note on one comparmen t open model i.v. infusion administration.

**Section C**

1. What is bioavailability? Discuss the measurement and significance of bioavailability.
2. Dicuss the design and regulatory requirement for bioequivalence studies.
3. Discuss dose regimen for renal and hepatic failure.
4. What is IVIVC? Discuss in detail.