**B. Pharm 6th Semester Examination**

**Subject- Biopharmaceutics and Pharmacokinetics (BP604T)**

**Full Marks- 75 Time – 3 hours**

**Answer all the questions.**

1. Explain the followings (10X2=20)
   1. Sink condition
   2. Bioavailability
   3. Lipinski rule of five
   4. Area under the curve (AUC)
   5. Mean residence time
   6. Passive absorption
   7. Michaelis Menten equation
   8. One compartment open model
   9. Bioequivalence
   10. Volume of distribution
2. Answer any two questions (2X 10=20)
3. Enlist the various physio-chemical factors affecting the absorption of drug. Explain the pH partition hypothesis in detail
4. Discuss the significance of protein binding. Add a short note on plasma protein -drug binding
5. Find out various pharmacokinetic parameters using one compartmental open iv bolus model
6. Attempt any seven questions (7X 5=35)
7. Enlist the various elements of Bio-equivalence study protocol
8. Describe the methods of testing of kidney function
9. Discuss the measurement of bioavailability using blood data.
10. Describe Sigma minus method
11. List the various processes through which vitamin B12 can cross the biological membrane. Describe facilitated a process in detail.
12. Discuss on the crossover design for bioequivalence study
13. Write a short note on Blood Brain Barrier
14. Describe the method of determination of AUC by trapezoid and integration method.
15. Differentiate between compartmental and noncompartmental analysis

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