VINAYAKA MISSION'S RESEARCH FOUNDATION
(DEEMED TO BE UNIVERSITY), SALEM

B.PHARM. DEGREE EXAMINATION – JULY 2019
Sixth Semester

BIOPHARMACEUTICS AND PHARMACOKINETICS

Time   : Three hours   Maximum: 75 marks

I. Write essays on any **TWO** questions: **(2 x 10 = 20)**

1. What is absorption? Discuss various mechanisms of drug absorption through GIT?
2. What is bioavailability? Discuss various methods of its measurement.
3. a) With suitable equations and graphs explain one compartment open model?
   b) Describe in brief the factors causing non-linearity in pharmacokinetics.

II. Write short answers on any **SEVEN** questions**:**   **(7 x 5 = 35)**

4. Describe in brief about factors affecting protein – drug bindings.
5. Describe pH-partition hypothesis.
6. Write the concept of clearance.
7. Describe invitro and invivo correlations.
8. How do you calculate pharmacokinetic parameters from urinary excretion data?
9. Describe in brief methods to enhance bioavailability of poorly soluble drugs.
10. Write in brief the kinetics of multiple dosing.
11. Describe any one method for the determination of K_m in invitro and in patients.
12. Discuss about various study designs used in bioequivalence studies?

III. Write short notes on :   **(10 x 2 = 20)**

13. Presystemic metabolism.
14. Surface area of GIT in drug absorption.
15. Absorption window.
16. Renal function tests.
17. Primary pharmacokinetic parameters.
18. Physiological models.
19. Placental barrier
20. Types of protein binding of drugs.
21. Type II (USP) dissolution apparatus.
22. Maintenance dose and loading dose.

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