

**Rajiv Gandhi University of Health Sciences, Karnataka**  
**IV Year B.Pharm Degree Examination - 17-Jan-2020**

**Time: Three Hours****Max. Marks: 70 Marks**

**PHARMACY PRACTICE – II (RS-3)**

**a. Pharmacokinetics and Therapeutic Drug Monitoring**

**Q.P. CODE: 2623**

Your answers should be specific to the questions asked  
Draw neat labeled diagrams wherever necessary

**LONG ESSAYS (Answer any Two)****2 x 10 = 20 Marks**

1. Discuss the Pharmacokinetics of a drug given by IV bolus injection, which follows two compartment open model.
2. Discuss the Kinetics of protein binding. Explain the method for determination of binding constant and number of binding sites.
3. Discuss Multiple dosage regimen concept for Calculation of  $C_{max}$ ,  $C_{min}$  and  $C_{ss}$ .

**SHORT ESSAYS (Answer any Six)****6 x 5 = 30 Marks**

4. Discuss apparent volume of distribution. Explain the significance of high and low  $V_d$ .
5. Explain various types of Pharmacokinetic models with their advantages and disadvantages.
6. Describe clearance of drugs and its calculation.
7. Discuss the functions of TDM services.
8. Explain the significance of protein binding.
9. Explain analytical aspects of TDM.
10. Describe drug distribution.
11. Discuss Dosing of drug in pregnancy & lactation.

**SHORT ANSWERS****10 x 2 = 20 Marks**

12. Microconstants in two compartment open model.
13. Pharmacokinetics.
14. Elimination rate constant.
15. Absorption rate constant.
16. Clearance.
17. Three compartment model.
18. Need for therapeutic drug monitoring of aminoglycosides.
19. Physiological modeling.
20. AUC
21. AUMC and MRT.

\*\*\*\*\*