2023/08

SET A

B. PHARM.
SIXTH SEMESTER
BIOPHARMACEUTICS & PHARMACOKINETICS
BP604T [SPECIAL REPEAT]

[USE OMR SHEET FOR OBJECTIVE PART]

Duration: 3 hrs. **Full Marks: 75**

[PART-A: Objective]

Time: 30 min. **Marks: 20**

Choose the correct answer from the following: ***1×20=20***

1. In multi compartment model , elimination follows?
   a. First order kinetics
   b. Mixed order kinetics
   c. Zero order kinetics
   d. None of the above

2. Cl_r=_____?
   a. Ke.Vc
   b. Ke.X
   c. 0.693/k
   d. 0.691/k

3. Which of the following drug is extensively reabsorbed in tubular reabsorption phase?
   a. Lipid soluble drugs
   b. Water soluble drugs
   c. Polar drugs
   d. Hydrophilic drugs

4. Rate determination step for lipophilic drug is
   a. Disintergration
   b. Dissolution
   c. Permeation
   d. Gastric emptying time

5. Drugs for easy penetration, need partition coefficient ?
   a. High
   b. Moderate
   c. Low
   d. Negligible

6. Which is the highest level of IVIVC?
   a. Level A
   b. Level B
   c. Level C
   d. Multiple level C

7. Priming dose is also known as _____ ?
   a. Loading dose
   b. Dose size
   c. Dose frequency
   d. Dose interval

8. Which route of drug administration shows 100% bioavailability?
   a. Oral
   b. Intravenus
   c. Rectal
   d. Topical

9. Maximum plasma concentration obtained after extravascular administration is known as -
   a. Cmax
   b. Tmax
   c. DXU/dt
   d. AUC

0. X/C=_____?
   a. Vd
   b. Cl_T
   c. AUC
   d. None of the above

1. $T_{1/2}$=_____?
   a. 0.965/k
   b. 0.951/k
   c. 0.693/k
   d. 0.691/k

2. Wagner-nelson method is used for the estimation of ?
   a. K_a
   b. K_e
   c. V_d
   d. Clearance

3. In multi compartment model, the sharp decline of concentration on central compartment due to?
   a. Distribution
   b. Metabolism
   c. Elimination
   d. None of the above

4. In multi compartment model , elimination takes place from _____compartment.
   a. Peripheral
   b. Central
   c. Both (a) and (b)
   d. None of the above

5. Distributive phase takes place in _____ compartment.
   a. Peripheral
   b. Central
   c. Both (a) and (b)
   d. None of the above

6. Non linear Pharmacokinetics is also called as _____ ?
   a. First order kinetics
   b. Mixed order kinetics
   c. Zero order kinetics
   d. None of the above

7. Which of these is not a pharmacodynamic parameters?
   a. Onset of action
   b. Onset of time
   c. Therapeutics range
   d. Loading dose

8. Non compartment analysis is also called as
   a. Model independent
   b. Model dependent
   c. Mamillary model
   d. Catenary model

9. Frequency of administration of drug in a particular dose is
   a. Dose number
   b. Dose interaction
   c. Dose ratio
   d. Dose regimen

10. The process of movement of drug from its site of administration to the systemic circulation is?
   a. Absorption
   b. Distribution
   c. Metabolism
   d. Elimination

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PART-B :Descriptive

Time : 2 hrs. 30 min. Marks : 35

[Answer any seven (7) questions]

1. Draw curves for two compartment open model(plot between log C vs time) and mention the equation for rate of change of drug concentration in central compartment 5

2. Discuss the causes of non linearity 5

3. Write factors influencing GI absorption of a drug. 5

4. Discuss latin square design for cross over bioequivalence studies 5

5. Discuss types of compartment model with diagram and write three applications. 5

6. Discuss assumptions of two compartment open model with diagram. 5

7. Discuss acceptance criteria for dissolution testing of different dosage forms. 5

8. Discuss absorption of drugs from Non-per OS extravascular routes(mention only 5 route) 5

9. Discuss five methods for enhancement drug solubility 5

PART-C: Long type questions

[Answer any two (2) questions]

1. Discuss one compartment open model i.v. infusion. 10

2. Discuss Michaelis Menten menthod for estimating parameters. 10

3. Give the expression of Noyes-Whitney equation and discuss factors affecting drug dissolution. 10

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