



Seat No.	
----------	--

Set **P**

**B.Pharm. (Semester – V) Examination, 2018**  
**BIOPHARMACEUTICS**  
**(New CBCS Pattern)**

Day and Date : Monday, 10-12-2018

Total Marks : 70

Time : 10.30 a.m. to 1.30 p.m.

1. Multiple choice questions :

**(1×15=15)**

- 1) Pore transport drug absorption mechanism is also called as
  - A) Convective transport
  - B) Bulk flow
  - C) Filtration
  - D) All of these
- 2) Permeability is rate limiting step in absorption for which of following class of drug ?
  - A) I
  - B) III
  - C) II
  - D) IV
- 3) \_\_\_\_\_ is also called Tamoxifen binding site.
  - A) Site-III
  - B) Site-I
  - C) Site-II
  - D) Site-IV
- 4) Which of following globulin binds to Antigens ?
  - A)  $\alpha_1$
  - B)  $\beta_1$
  - C)  $\gamma$
  - D)  $\alpha_2$
- 5) By using which compound, we determine Active tubular Secretion of kidney.
  - A) PAH
  - B) Iodopyracet
  - C) Both A) and B)
  - D) Creatinine
- 6) For both urine and bile excretion, drugs molecular weight should be \_\_\_\_\_ Daltons.
  - A) Less than 300
  - B) More than 500
  - C) 300-500
  - D) All of these
- 7)  $C_{max}$  value depends on
  - A) Dose Administered
  - B) Rate of adsorption
  - C) Rate of Elimination
  - D) All of these

P.T.O.



- 8) Synonym for compartment models is
- A) Empirical model                      B) Realistic model  
C) Psychological model                D) Both A) and B)
- 9) pH of urine varies between
- A) 4.5 to 7.5                              B) 2.5 to 5.5  
C) 3.5 to 7.5                              D) 7.5 to 9.5
- 10) Which of following is primary parameter ?
- A)  $V_d$                                       B) Clearance  
C)  $t_{1/2}$                                       D) Both A) and B)
- 11) Volume of fluid cleared of unchanged drug per unit time is called
- A) Clearance  
B) Elimination  
C) Volume of distribution  
D) None of the above
- 12) \_\_\_\_\_ is poorly perfused organ.
- A) Brain                                      B) Muscle  
C) Bone                                        D) Liver
- 13) Digitoxin binding site of Albumin is known as
- A) Site I                                        B) Site II  
C) Site III                                      D) Site IV
- 14) Elimination process having which of following processes ?
- A) Excretion  
B) Biotransformation  
C) Distribution  
D) None of the above
- 15) A agent that causes toxic effects on foetus called as
- A) Teratogen  
B) Allergen  
C) Antigen  
D) Both B) and C)



2. Solve **any five** :

(5×5=25)

- 1) How pharmaco-technical factors affected on gastrointestinal drug absorption ?
- 2) Write in detail about BCFB and BPB barriers.
- 3) Explain binding of drug to HSA and Globulins.
- 4) Describe salivary excretion as one of non-renal route of drug excretion with suitable example.
- 5) Define non-linear pharmacokinetics and explain in brief causes of Non-linearity.
- 6) Write a note on film theory as one of dissolution mechanism.

3. Solve **any three** :

(10×3=30)

- 1) What is mean by Pharmacokinetics model ? Classify and explain various pharmacokinetic and pharmacodynamic parameters in detail.
- 2) Write a detailed note on one-compartment open model intravenous infusion.
- 3) Explain in detail various mechanism of drug absorption with suitable examples.
- 4) Write detail various factors affected on renal excretion of drug.

---