Registration No : | | | | | | | | | | |

Total Number of Pages : 01 **B.Pharm**
PH.7.1

7th Semester Back Examination 2019-20
PHARMACEUTICS - VI (BIO-PHARMACEUTICS AND PHARMACOKINETICS)
BRANCH : B.Pharma
Time : 3 Hours
Max Marks : 70
Q.CODE : HB008
Answer Question No.1 which is compulsory and any FIVE from the rest.
The figures in the right hand margin indicate marks.

Q1 **Answer the following questions :** **(2 x 10)**

a) Define Biopharmaceutics.
b) Write down the mechanism of pore transport.
c) What are the peroral route of drug administration?
d) Show different binding site of HSA with a diagram.
e) In compartmental modelling, what does the term 'open' mean?
f) What is flip flop phenomenon?
g) Define extraction ratio.
h) What do you mean by total clearance?
i) What is active tubular secretion?
j) Amorphous shows greater solubility than crystalline. Justify.

Q2 **a)** Describe active transport of drug. **(5)**
b) Write down the characteristics of Passive diffusion. **(5)**

Q3 **a)** What are the dosage form factors affecting drug absorption? **(5)**
b) State pH-partition hypothesis and describe its limitations. **(5)**

Q4 **a)** Describe first-pass metabolism in detail with suitable example. **(5)**
b) Discuss about various plasma proteins that bind with the drugs after absorption. **(5)**

Q5 **a)** Classify the chemical pathways of drug metabolism. **(5)**
b) Write down briefly the mechanism of renal clearance. **(5)**

Q6 **a)** What is drug-protein binding? Write its significance **(5)**
b) Derive the expression for biological half-life of a process following 1st order kinetics. **(5)**

Q7 Discuss about pharmacokinetic and pharmacodynamic methods of assessment of bioavailability. **(10)**

Q8 **Write short answer on any TWO :** **(5 x 2)**

a) Volume of distribution
b) Compartmental model
c) AUC
d) Enterohepatic cycling