10 MARKS

1. a) Explain how the following physicochemical properties affect drug action.
i) Hydrogen bonding ii) Geometrical isomerism iii) Protein binding
b) Define the process of metabolism? Illustrate the factors affecting metabolism
of dugs.
2.Explain in detail about Phase II metabolism reactions with examples.
3.Explain the following physiochemical properties related to the biological action.
a) Hydrogen bonding b) Optical and geometrical isomerism
4.a) List out the physicochemical properties that influence biological action. With suitable examples explain how the following properties affect drug absorption. (6)
i) Solubility ii) Ionization iii) Hydrogen bonding.
b)Write briefly on enzyme system involved in I Phase metabolism of drugs. (4)
5.Explain the various types of Phase I biotransformation pathways.
6.Discuss the following metabolic reactions with examples
(a) Acetylation
(b) Glucuronidation (c) Sulfation
7.Enumerate the various physicochemical properties that influence the biological activity and explain any two of them in detail.
8.A) Explain how the following properties influence the biological action a) Partition coefficient, b) Hydrogen bonding.
B) Explain Phase I drug metabolism with examples.
9.Explain in detail about Phase II Metabolic reactions with examples.

5 MARKS

1.Explain the factors affecting drug metabolism including stereochemical aspects
2.Explain Phase I metabolism of hepatic cytochrome P 450 system.
3.Explain protein binding with examples.
4.Write a note on the different types of receptors meant for drug action.
5. Outline the various factors that influence metabolism
6.Explain chelation and bioisosterism with examples.
7.Discuss in detail the various stereochemical aspects of drug metabolism
8.What is bioisosterism? How is it useful in the design of drugs?
9.Explain the biosynthetic pathway of prostaglandins.
10.Write a note on chelation and solubility
11.Describe the Phase I Metabolism

2 MARKS

1.Chelation.
2. Prodrug.
3.Catabolism
4.What is Easson Stedman hypothesis?
5.Agonist.
6. Ferguson principle.
7.Protein binding of drugs.
8.Xenobiotics.
9.Explain Hydrogen bonding with structural representations.
10.Write any two factors affecting solubility
11.What is partition coefficient?
12.Geometrical isomerism
13.What are classical bioisoteres?
14.Define bioisosterism.
15.Protein binding.
16.Partition coefficient.
17. Mention factors affecting drug metabolism