

**R07**

**Code No: R7602**

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, HYDERABAD**

**B. Pharmacy IV Year I Semester Examinations, May-2012**

**BIOPHARMACEUTICS AND PHARMACOKINETICS**

**Time: 3 hours**

**Max. Marks: 80**

**Answer any five questions**

**All questions carry equal marks**

- - -

1. Explain the role of bio pharmaceuticals in formulation development and clinical setting. [16]
- 2.a) Describe the factors affecting absorption of drugs.  
b) Explain Passive and Active transport with neat diagram. [8+8]
- 3.a) Explain the factors affecting drug distribution.  
b) Explain Drug distribution in the body. [10+6]
- 4.a) Describe the factors affecting drug-protein binding.  
b) Define plasma protein binding, explain binding sites with examples. [8+8]
5. Explain the compartmental modeling in pharmacokinetics. [16]
6. Describe pharmacokinetic drug interactions. [16]
- 7.a) Explain the regulatory requirements for conduction of bio-equivalence studies.  
b) Write the design of single dose bioequivalence study. [8+8]
8. Describe *in vitro* and *in vivo* bioavailability studies. [16]

---oo0oo---