

**IV B.Tech. I Semester Regular Examinations, November -2005**  
**BIO PHARMACEUTICAL TECHNOLOGY**  
**(Bio-Technology)**

**Time: 3 hours**

**Max Marks: 80**

**Answer any FIVE Questions**  
**All Questions carry equal marks**

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1. (a) Describe the prevention of food Adulteration Act and Rules. [8]  
(b) Answer any Two of the following.
  - i. Central food on laboratory
  - ii. Standards of quality.
  - iii. Preservative in food article
  - iv. Coloring matter in food articles. [4+4]
2. What are the characteristics of specialized transport systems? How can the Kinetics of such processes may be described? [16]
3. Write short notes of the following:
  - (a) Pharmacokinetics
  - (b) Organ Imaging technique
  - (c) Pharmacodynamics & therapeutic range. [6+5+5]
4. What is drying process in the bulk drug manufacturing? Write the classification of Dryers and describe them. [16]
5. Write about the sugar coating of the tablets. [16]
6. Write about different preservatives & anti oxidants used in the manufacture of the parenteral dosage forms. [16]
7. Indicate the importance of vitamins  $B_1$ ,  $B_2$ , D and E, what are the sources of these vitamins. [16]
8. Write about non-steroidal contraceptives like Estrogens and their side effects. [16]

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1. (a) Define the term "Antidepressant". Briefly describe the chemical classification of antidepressants. [8]  
(b) Write structures and uses of the following drugs.
  - i. Penicilline
  - ii. Phenelzine sulfate (Nordil)
  - iii. Antriptyline hydro chloride(Enovil) [2+3+3]
2. Why the Phase-II reactions are called as true detoxification reactions in drug metabolism, explain with examples? [16]
3. Write short notes of the following:
  - (a) Pharmacokinetics
  - (b) Organ Imaging technique
  - (c) Pharmacodynamics & therapeutic range. [6+5+5]
4. Write short notes of the following:
  - (a) Crystallization process
  - (b) Drying process
  - (c) Mixing process. [6+5+5]
5. Write about different stages involved in sugar coating. [16]
6. Write about different glass containers used for the packing of dosage form. [16]
7. Write the synthesis properties and uses of ascorbic acid. [16]
8. Answer any Two of the following.
  - (a) Tetracyclines structure, properties and uses.
  - (b) Different structures of penicillins
  - (c) Classification of antibiotics. [8+8]

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1. What are Cholinergic drugs? Discuss the different types of cholinergic drugs. [16]
2. (a) How are ionic / ionizable drugs absorbed  
(b) Buffered aspirin tablets are more suitable than sodium salt form of aspirin why? [8+8]
3. (a) Define Pharmacokinetics. Name and define the three pharmacokinetic parameters that describe a typical plasma level - time curve.  
(b) What are the various pharmacodynamic parameters? [8+8]
4. What is the importance of the flow sheet in the bulk drug manufacturing? Describe about different types of general reactions involved in the bulk drug production. [16]
5. Write about different stages involved in sugar coating. [16]
6. Write the quality control of parenteral dosage forms. [16]
7. Write the synthesis properties and uses of ascorbic acid. [16]
8. (a) Write about male sex hormones and oral contraceptives or pills.  
(b) Write about corpus Luteum Hormones (or) gestogens. [8+8]

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1. Explain about therapeutic agents, and what are general anaesthetics? Describe different types of general anesthetics, give examples . [16]
2. (a) Give reasons for higher solubility and better dissolution of salt forms of the drug in comparison to their free acidic or basic forms?  
(b) Discuss briefly the influence of pharmaceutical excipients on drug bio-availability? [8+8]
3. How the radioactive radiations affect the human body? Describe about the effect of radioactive radiations on the rate of cell division? [16]
4. (a) How the  $P^H$  is controlled in the manufacture of bulk drugs? Explain with examples.  
(b) How the temperature is controlled in the case of bulk drug manufacturing. explain with examples. [8+8]
5. Write the operation of rotary tablet press. [16]
6. Write about the different plastic materials used for the packing of pharmaceuticals. [16]
7. Write short notes on :
  - (a) Analgesics and their therapeutic value, give examples
  - (b) Laxatives and their therapeutic importance give examples
  - (c) Vitamins and their importance explain clearly. [6+5+5]
8. (a) What are the conjugated estrogens and describe about conjugated estrogens with examples?  
(b) Describe about the therapeutic importance of non-steroidal contraceptives? [8+8]

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