

February 2009

[KU 752)

Sub. Code: 4243

**FOURTH B.PHARM. DEGREE EXAMINATION**

**(Regulations 2004)**

**Candidates Admitted from 2004-05**

**Paper II – FORMULATIVE PHARMACY AND  
BIOPHARMACEUTICS**

**Q.P. Code : 564243**

**Time : Three hours**

**Maximum : 90 marks**

**I. Essay Questions : Answer any TWO questions (2 x 20 = 40)**

1. Differentiate hard and soft gelatin capsules. Explain the method of manufacturing of soft gelatin capsule by rotary die process.
2. Define pharmacokinetics, Explain the pharmacokinetic & pharmacodynamic parameters in plasma level time curve.
3. Write the principle behind osmotic drug delivery system, explain in detail about various osmotic pressure controlled devices and write the applications of osmotic drug delivery system.

**II. Write Short Notes : Answer any EIGHT questions (8 x 5 = 40)**

1. Crystallinity and Polymorphs.
2. Processing problems of tablet dosage form.
3. Dissolution test for tablet dosage form.
4. Film coating.
5. Quality control tests of parenteral dosage form.
6. Layout of aseptic area.
7. Design and construction of prolonged action products.
8. Co auration phase separation.
9. Carrier mediated transport.
10. Evaluation of transdermal drug delivery system.

**III. Short Answers: Answer any FIVE questions (5 x 2 = 10)**

1. Orange peel effect.
2. Schematic representation of manufacturing of hard gelatin capsule.
3. Principle of LAL test.
4. HEPA filters.
5. Down hill transport.
6. Elimination rate constant & renal clearance.
7. Apparent volume of distribution and area under curve.

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August 2009

[KV 752)

Sub. Code: 4243

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**(Regulations 2004)**

**Candidates Admitted from 2004-05**

**Paper II – FORMULATIVE PHARMACY AND  
BIOPHARMACEUTICS**

***Q.P. Code : 564243***

**Time : Three hours**

**Maximum : 90 marks**

**I. Essay Questions : Answer any TWO questions (2 x 20 = 40)**

1. Write a note on objectives of tablet coating. Explain the different types of coating and explain film coating and its evaluation of coated tablets.
2. What is the importance of pre-formulation studies? What are the steps involved in pre-formulation studies?
3. a) Write a note on different types of solvent systems used in parenteral formulations and describe the methods of collection, storage and testing of water for injection.  
b) Write a note on additives used in parenteral preparations.

**II. Write Short Notes : Answer any EIGHT questions (8 x 5 = 40)**

1. Write defects occur in manufacturing of tablets.
2. Organoleptic property.
3. Write a note on the drug permeation process through skin.
4. Write different types of packaging for tablets.
5. What is bloom strength? Explain how it is determined?
6. Explain disintegration test for tablets.
7. Explain the preparation of microencapsulation by coacervation phase separation technique.
8. Write a note on containers and closures for the parenterals.
9. Write short notes about liposomes.
10. Explain factors affecting drug absorption.

**III. Short Answers: Answer any FIVE questions (5 x 2 = 10)**

1. Total body clearance.
2. Apparent volume of distribution.
3. Pharmacokinetic study.
4. Write advantages and limitation of prolonged acting pharmaceuticals.
5. Write methods of measuring bioavailability.
6. Bio equivalency testing.
7. Biological half life.

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February 2010

[KW 752]

Sub. Code: 4243

**FOURTH B.PHARM. DEGREE EXAMINATION**  
**(Regulation 2004)**  
**(For Candidates admitted from 2004–05 onwards)**  
**Paper II – FORMULATIVE PHARMACY AND**  
**BIOPHARMACEUTICS**  
*Q.P. Code : 564243*

**Time : Three hours**

**Maximum : 90 marks**

**I. Essay Questions : Answer any TWO questions (2 x 20 = 40)**

1. Define tablets. What are the various methods of manufacturing of tablets? Discuss in detail wt granulation method and evaluation of tablets.
2. Define capsules and enumerate the advantages of capsules. Explain in detail formulation technology of hard gelatin capsules. Add a note on evaluation of capsules.
3. Describe in detail the production of parenterals with its advantages and limitations. Add a note on the pharmaceutical evaluation of parenteral products.

**II. Write Short Notes : Answer any EIGHT questions (8 x 5 = 40)**

1. Explain the polymorphism and its influence in the formulation of solid dosage form.
2. Importance of additives in tablet formulation.
3. Write a note on objectives of tablet coating.
4. Explain the biological factors and physico-chemical factors influence the transdermal delivery of drugs.
5. Differences and similarity in hard gelatin capsule and soft gelatin capsule.
6. Explain friability and hardness test for tablets.
7. What are the types of microcapsules and its importance in pharmacy?
8. Parenteral implants.
9. Explain – Liposomes.
10. Invite – invivo correlation.

**III. Short Answers: Answer any FIVE questions (5 x 2 = 10)**

1. Define pharmacokinetics study.
2. Define bioavailability.
3. Biological half life.
4. Renal clearance.
5. Bio equivalency testing.
6. Importance of rubber closure.
7. Write benefits of prolonged action pharmaceuticals.

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[KX 752)

September 2010

Sub. Code: 4243

**FOURTH B.PHARM. DEGREE EXAMINATION**

**(Regulations 2004)Candidates Admitted from 2004-05**

**Paper II – FORMULATIVE PHARMACY AND BIOPHARMACEUTICS**

***Q.P. Code : 564243***

**Time : Three hours**

**Maximum : 90 marks**

**I. Essay Questions :**

**(2 X 20 = 40)**

**Answer any TWO questions.**

1. Discuss about the Evaluation of tablets.
2. Discuss about the stabilization and stability testing protocol for various pharmaceutical products.
3. a) Write the benefits and limitations of prolonged action pharmaceuticals.  
b) Write about two methods for preparation of prolonged action pharmaceuticals.

**II. Write Short Notes :**

**(8X 5 = 40)**

**Answer any EIGHT questions.**

1. Defect in film coating.
2. Air suspension process.
3. Importance of Microencapsulation in pharmacy.
4. Filling of soft gelatin capsules.
5. Size of hard and soft gelatin capsules.
6. Pyrogen test.
7. Isotonicity and methods of its adjustment.
8. Transdermal drug delivery system.
9. Osmotic drug delivery system.
10. Biological factors in drug absorption.

**III. Short Answers:**

**(5X2 = 10)**

**Answer any FIVE questions.**

1. Apparent volume of distribution.
2. Clearance.
3. Double impression.
4. Prolonged Action Pharmaceuticals.
5. Aseptic techniques.
6. Vehicles used in parenteral products.
7. Coating.

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**FEBRUARY 2011**

**[KY 752]**

**Sub. Code : 4243**

**FOURTH B.PHARM. DEGREE EXAMINATION.**

**(Regulations 2004) Candidates Admitted from 2004-05**

**Paper II — FORMULATIVE PHARMACY AND BIOPHARMACEUTICS**

***Q.P. Code : 564243***

**Time : Three hours**

**Maximum : 90 marks**

**I. Essay Questions : Answer any TWO questions. (2 x 20 = 40)**

1. Describe the various quality control tests to be carried out on tablets.
2. Write an account of the components, containers and closures required for injectables.
3. Discuss the different oral sustained release dosage forms. Give the advantages and limitations of SR products. (15 + 5)

**II. Write Short Notes : Answer any EIGHT questions. (8 x 5 = 40)**

1. Enteric coating of tablets.
2. Dosage form factors affecting oral absorption of drugs.
3. Fluidised bed granulation.
4. Accelerated stability testing.
5. Quality control tests on hard gelatin capsules.
6. Pyrogen testing.
7. One compartment open model Pharmacokinetics (i.v bolus administration).
8. Measurement of bioavailability.
9. Osmotic pumps.
10. Liposomes.

**III. Write Short Answers: Answer any FIVE questions. (5 x 2 = 10)**

1. Enumerate the methods of microencapsulation.
2. Mottling.
3. Directly compressible vehicles.
4. Bioequivalent products.
5. Define clearance.
6. Name the types of tablets.
7. Super disintegrants.

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