APRIL - 1993

[RS 560]

FOURTH B.Pharm. DEGREE EXAMINATION.

(Old Regulations)

Paper III — FORMULATIVE AND INDUSTRIAL PHARMACY

Time : Three hours Maximum : 100 marks

Answer any FIVE questions.

All questions carry equal marks.

1. Give an account of the tablet excipients, explaining their mechanism of action and functions in the production of tablets.

2. Briefly discuss the production of injectable preparations, laying stress on the environmental conditions, physical facilities and personal hygiene.

3. Describe the manufacture and filling of hard gelatin capsules.

4. What is the principle in Aerosol dosage form? With an appropriate diagram, explain the different components with their functions of an Aerosol container.

5. Discuss the film coating of tablets.

6. Enumerate the various cosmetic preparations used in the care of the face. Discuss in detail the formulation and manufacture of any one of them.

7. Write short notes on any FOUR of the following :

   (a) Sustained action dosage.
   (b) Effervescent granules.
   (c) Bioavailability.
   (d) Radio pharmaceuticals.
   (e) Ophthalmic ointments.

NOVEMBER - 1993

[PR 177]

FOURTH B.Pharm. DEGREE EXAMINATION.

(Old Regulations)

Paper III — FORMULATIVE AND INDUSTRIAL PHARMACY

Time : Three hours Maximum : 100 marks

Answer any FIVE questions.

All questions carry equal marks.

1. Discuss the different stages involved in the manufacture of compressed tablets.

2. Explain the principle and method of preparation of effervescent granules. What are their advantages?

3. Discuss the various factors to be considered in the formulation of injectable products.

4. What are Radio-active isotopes? Give a brief account of medical applications of Radio-Pharmaceuticals.

5. Discuss the different factors responsible for affecting the solubility of drugs in the preparation of oral liquid products.

6. What are the characteristics of an ideal Lipstick? Discuss the formulation and manufacture of Lipstick.

7. Write short notes on any FOUR of the following :
   (a) Compression coating.
   (b) Dissolution test for tablets.
   (c) Medical gases.
   (d) Stability testing.
   (e) Soft gelatin capsules.

———————

NOVEMBER - 1994

[ND 599]

FOURTH B.Pharm DEGREE EXAMINATION

(New Regulation)

Paper III - FORMULATIVE AND INDUSTRIAL PHARMACY

Time : Three hours Maximum : 90 marks

Two and a half hours for Section A and B Section A and B : 60 marks

Answer Section A and B in separate answer books

Answer Section C in the answer sheet provided

SECTION - A (2×15=30)

Answer any TWO Questions

1. Write a detailed note on preformulation and its importance.
2. Discuss the merits of film-coating of compressed tablets. Write briefly on the evaluation of tablets.
3. Enumerate the problems in the formulation of Oral suspensions and their corrections.

SECTION - B (6×5=30)

4. Write short notes on any SIX :
   a) Accelerated stability studies
   b) Plastic containers
   c) Osmotic pump
   d) Sweetening agents
   e) Blister Package
   f) Hydrophilic Suppository bases
   g) Lipsticks
   h) Quality assurance

———

APRIL - 1995

(SB 599)

Fourth B. Pharm Degree Examination

(OLD REGULATIONS)

Paper III - FORMULATIVE AND INDUSTRIAL PHARMACY

Time : Three hours Maximum : 100 marks

Answer any Five questions.

All questions carry equal marks.

1. With the help of a neat diagram explain the construction and working of an aerosol valve. (20)

2. Mention the different factors to be considered in the design of sustained action dosage forms.

   Discuss the preparation of "matrices" for the sustained release. (10+10)

3. Enumerate the equipments used in the manufacture of hard and soft gelatin capsules. With the help of a neat diagram, describe the rotary die process for the manufacture of soft gelatin capsules. (10+10)

4. Describe how Radio - Iodinated serum albumin is produced. What are the pharmacopoeial requirements for this preparation. (10+10)

5. Describe the formulation and processing aspects of cold creams and vanishing creams (20)

6. Describe the various steps involved in the formulation of an oral suspension. What problems are encountered in the formulation of a flocculated suspension from structured vehicles? (12+8)

7. Write short notes on any Four

   a) Effervescent granules

   b) Additives in liquid orals

   c) Geiger muller counter

   d) Powders for external use

   e) Containers for parenterals. (4 X 5 = 20)

APRIL - 1995

[SB 604]

Fourth B. Pharm. Degree Examination

(New Regulations)

Paper III - FORMULATIVE AND INDUSTRIAL PHARMACY

Time : Three hours — Maximum : 90 Marks

Two and a half hours for Sections A and B — Sections A and B : 60 marks

Answer Sections A and B in separate answer books

Answer Section C in the answer sheet provided

SECTION A (2X15=30)

Answer any TWO questions

1. With the help of a flow diagram, explain the lay out of a parenteral section in a pharmaceutical industry. How do you ensure the sterility of an aseptic area. (8+7)

2. Describe the process of sugar-coating of tablets. What are its merits and demerits ? (8+7)

3. Enumerate the various causes of decomposition of medicinal agents. Discuss the stabilization of drug formulations against oxidation and hydrolysis (7+8)

SECTION B

4. Write Short notes on any SIX : (6X5=30)

   a) Lozenges

   b) Powder triturates

   c) Blister packing

   d) Ophthalmic solutions

   e) Metered valve of aerosol

   f) Cold creams

   g) Medical gas

   h) Hard gelatin capsules.

NOVEMBER - 1995

MB 731

FOURTH B.PHARM DEGREE EXAMINATION

(Old Regulations)

Paper III - FORMULATIVE AND INDUSTRIAL PHARMACY

Time: Three hours Max. 100 marks.

Answer any Five questions.
All questions carry equal marks.

1. With the help of a neat diagram describe how a multiple punch tablet machine works. (20)

2. Discuss different stages involved in sugar coating.
Describe with neat sketches the working of any two coating pans. (10+10)

3. What are various defects in tablets, how are they caused. Explain how they can be overcome. (20)

4. Discuss different physicochemical and biological factors that affect drug absorption. (20)

5. How are tooth pastes manufactured in bulk.
Discuss the formulation of any tooth paste in detail. (10+10)

6. What is accelerated stability tesing? Discuss how the shelf-life of a formulation is determined by this method. (20)

7. Write short notes on any Four: (4 X 5 = 20)
   a). Preservatives in injectables
   b). Diagnostic radio-isotopes
   c). Evaluation of suspensions
   d). Ion - exchange resins in SR formulation
   e). Quality control of aerosol preparations.

NOVEMBER - 1995

[MB 736]

Fourth B. Pharm Degree Examination

(New Regulations)

Paper III - FORMULATIVE AND INDUSTRIAL PHARMACY

Time : Three hours — Max : 90 marks
Two and half hours for Sec. A and B — Sec. A and B : 60 marks

Answer section A and B in separate answer books
Answer section C in the answer sheet provided

SECTION—A (2×15=30)

Answer any Two questions

1 What is micro encapsulation. Mention and briefly explain different microencapsulation methods, Discuss the 'coacervation phase separation' techniques in detail with suitable examples. (2+7+6)

2. What are aerosols ? Discuss the general principles involved in the formulation of different types of aerosols. Add a note on aerosol values. (2+9+4)

3. What is sustained release ? Discuss how the initial and maintenance doses are calculated and corrected in the formulation of SR products. Explain why certain drugs are not suitable for SR. (2+8+5)

SECTION—B (6×5=30)

4. Write short notes on any SIX

a) Polymorphism

b) Antioxidants

c) Vehicles in parenteral formulations

d) Formulation of shampoos

e) First pass metabolism

f) Bio-availability

g) Defects in tablets

h) Formulation of eye ointments.

———

APRIL - 1996

AK 736

Fourth B.Pharm Degree Examination
(Old Regulations)
Paper III - FORMULATIVE AND INDUSTRIAL PHARMACY

Time : Three hours Max. 100 Marks.

All questions carry equal marks.
Answer any Five questions.

1. Discuss with a flow chart the manufacture of injections in ampoules sterilized by autoclaving. Explain the quality control test performed for injections.

2. Discuss the manufacture of syrups and elixirs containing medicaments. Give official examples. Discuss the relative merits and demerits of syrups & elixirs. How are oral liquids made acceptable to patients.

3. a). Explain how effervescent granules are manufactured?
   b). Explain the large scale filling machine operation for hard gelatin capsules.

4. a). Explain the various additives used for making tablets. How are lozenges tablets manufactured? Discuss the quality control test for tablets.

5. Explain how expiry date drugs are found out by accelerated stability testing methods.

6. Explain the rationale behind sustained action formulations. Discuss the various techniques for making sustained action formulations? How are they evaluated?

7. Write short notes on any Four:
   a). Manufacture of Nail polish or Tooth paste.
   b). Physical factors influenzing bioavailability.
   c). Application of Radiopharmaceuticals with examples
   d). Compression coating of tablets
   e). Film coating of tablets

****

APRIL - 1996

[AK 741] Subject Code : 4218

Fourth B. Pharm Degree Examination

(New Regulations)

Paper III . FORMULATIVE AND INDUSTRIAL PHARMACY

Time : Three hours Maximum : 90 marks
Two and a half hours for Section A and B Sec. A and B : 60 marks

Answer Sections A and B in separate answer books.
Answer Section C in the answer sheet provided.

SECTION - A (2×15=30)

Answer any TWO questions.

1. Discuss is detail the Transdermal drug delivery system and liposomal drug delivery system as novel drug delivery systems.
2. Classify Tablets ? Explain as to how different types of Tablets are processed ? Discuss the dissolution testing for tablets.
3. Explain the manufacture of Hard gelatin capsules & soft gelatin capsules. Discuss the problems encountered during the manufacture of capsules.

SECTION - B (6×5=30)

4. Write short notes on any SIX :
   a) Organoleptic additives in formulation
   b) Bio equivalency testing
   c) Physico-chemical factors influenzing bio availability.
   d) Quality control test for injections
   e) Formulation of shampoos
   f) Principles of stability testing
   g) Micro encapsulation
   h) Compression coating

OCTOBER - 1997

[MS 727] **Sub. Code : 4218**

FOURTH B.Pharm. DEGREE EXAMINATION.

(New Regulations)

Paper III — FORMULATIVE AND INDUSTRIAL PHARMACY

Time : Three hours — Maximum : 90 marks
Two and a half hours for Sec. A and B — Sec. A & B : 60 marks
Section C : 30 marks

Answer Sections A and B in separate answer books.

Answer Section C in the answer sheet provided.

SECTION A — (2 × 15 = 30 marks)

Answer any TWO questions.

1. Discuss in detail the evaluation of parenterals.

2. Discuss in detail the process of sugar coating of tablets with an example.

3. Discuss in brief any two different techniques of the Microencapsulation process.

SECTION B — (6 × 5 = 30 marks)

4. Answer any SIX of the following :

(a) Write the principle of using ion exchange resins for sustained action formulations.

(b) Write the concepts of liposomal drug delivery systems.

(c) Explain the significance of determination of Apparent volume of distribution of a drug in the blood.

(d) Explain the cosolvency application in liquid formulations with an example.

(e) How do you prepare lozenges?

(f) Give a brief account of any two medical gases.

(g) What is the influence of packaging components on dosage form stability?

(h) Write briefly the application of Radio pharmaceuticals.

———

OCTOBER - 1997

[MS 732] **Sub. Code : 4223**

FOURTH B.Pharm. DEGREE EXAMINATION.

(Revised Regulations)

Paper III — FORMULATIVE AND INDUSTRIAL PHARMACY

Time : Three hours — Maximum : 90 marks
Two and a half hours for Sections A and B — Sections A & B : 60 marks
Section C : 30 marks

Answer Sections A and B in separate answer books.

Answer Section C in the answer sheet provided.

SECTION A — (2 × 15 = 30 marks)

Answer any TWO questions.

1. Mention the different factors to be considered in the design of sustained action dosage forms. Discuss the preparation of "Matrices" for the sustained release.

2. With the help of a neat diagram explain the construction and working of an aerosol valve.

3. Describe the process of sugar coating of tablets. What are its merits and demerits?

SECTION B — (6 × 5 = 30 marks)

4. Write briefly on any SIX :
   (a) Effervescent granules.
   (b) Face powders.
   (c) Containers for parenterals.
   (d) Cold creams.
   (e) Osmotic drug delivery systems.

   (f) Blister packing.
   (g) Medical gases.
   (h) Tablet Triturates.

APRIL - 1998

[SV 727] Sub. Code : 4218

FOURTH B.Pharm. DEGREE EXAMINATION.

(New Regulations)

FORMULATIVE AND INDUSTRIAL PHARMACY

Time : Three hours Maximum : 90 marks

Two and a half hours Sec. A & Sec. B : 60 marks

for Sec. A and Sec. B Section C : 30 marks

Answer Sections A and B in separate answer books.

Answer Section C in the answer sheet provided.

SECTION A — (2 × 15 = 30 marks)

Answer any TWO questions.

1. What are different techniques of granulation in tableting? Discuss in detail manufacturing of compressed tablets by wet granulation technique. (3 + 12 = 15)

2. What are Pyrogens? How Pyrogen free water is prepared? Discuss in detail the tests for pyrogenicity of parenterals. (3 + 2 + 10 = 15)

3. Define aerosols. Mention its pharmaceutical applications. Discuss various aerosol systems. (2 + 4 + 9 = 15)

4. What are the merits and limitations of sustained release formulations? Describe briefly any one technique followed in the manufacturing of them. (3 + 12 =15)

SECTION B — (6 × 5 = 30 marks)

5. Answer any SIX of the following :

(a) Explain the principle and significance of friability test.

(b) What are multiple compressed tablets? Discuss their applications.

(c) Define and explain the significance of Base Adsorption and Minims/gram in connection with manufacturing of soft gels.

(d) Define and explain 'cap-locking' and "surface dilution" of syrups.

(e) Distinguish between "controlled" and "sustained" release drug delivery systems. Explain the principle of matrix type prolonged action pharmaceuticals.

(f) Give a brief account of buffering of ophthalmic preparations.

(g) What are basic components of tooth powders? Explain the function of each of them.

(h) What are shampoos? How do they differ from soaps?

(i) Explain coarcervation-phase separation technique of micro encapsulation.

———

APRIL - 1998

[SV 732] **Sub. Code : 4223**

FOURTH B.Pharm. DEGREE EXAMINATION.

(Revised Regulations)

Paper III — FORMULATIVE AND INDUSTRIAL PHARMACY

Time : Three hours — Maximum : 90 marks

Two and a half hours — Sec. A & Sec. B : 60 marks

for Sec. A and Sec. B — Section C : 30 marks

Answer Sections A and B in separate answer books.

Answer Section C in the answer sheet provided.

SECTION A — (2 × 15 = 30 marks)

Answer any TWO questions.

Answer should be brief and to the point.

1. What are the main objectives of formulation of drug(s) into Dosage forms? What formulation factors have to be taken into consideration in order to achieve desired dosage form, with regard to the following :

(a) Particle size (b) Solubility (c) Crystal form. (3 + 12 = 15)

2. What are sustained release dosage forms? Mention the potential advantages of sustained release dosage forms over conventional dosage forms. Give atleast two methods by which a drug with short biological half-life may be formulated as a prolonged action pharmaceuticals. (2 + 3 + 10 = 15)

3. How do you define parenterals? Discuss the product facilities required for the manufacture of parenteral products. Explain the principle of Limulus Amoebocyte Lysate (LAL) test to detect pyrogenic substances in parenteral products. (2 + 8 + 5 = 15)

SECTION B — (6 × 5 = 30 marks)

Answer any SIX questions.

All questions carry equal marks.

4. Briefly discuss the role of pH in the movement of drugs across gastro intestinal barrier.

5. Explain Apparent Volume of distribution and its significance in pharmacokinetics.

6. Write a note on sterility and preservation of ophthalmic solutions.

7. Write a note on shampoos.

8. Discuss Uniformity of weight and Uniformity of content for evaluation of tablets.

9. Name the different component of an Aerosol package. What are liquified gas propellants?

10. Write briefly the role of plasticizers in the manufacture of soft gelatin capsules.

11. Enumerate the potential advantages of transdermal drug delivery systems and give examples of transdermal drug delivery systems in use today.

[SM 727] **Sub. Code : 4218**

FOURTH B.Pharm. DEGREE EXAMINATION.

(New Regulations)

FORMULATIVE AND INDUSTRIAL PHARMACY

Time : Three hours — Maximum : 90 marks

Two and a half hours — Sec. A & Sec. B : 60 marks

for Sec. A and Sec. B — Section C : 30 marks

Answer Sections A and B in separate answer books.

Answer Section C in the answer sheet provided.

SECTION A — (2 × 15 = 30 marks)

Answer any TWO questions.

1. Explain in detail about methods of tablet manufacture for moisture sensitive materials.

2. Give a detailed account of diagnostic applications of radiopharmaceuticals.

3. Explain how the required environment control can be achieved in parenteral manufacturing area.

SECTION B — (6 × 5 = 30 marks)

4. Answer any SIX of the following :

(a) How are the effervescent granules prepared?

(b) What do you understand by "accelerated stability testing"?

(c) List out the different medical gases and their uses.

(d) What are the essential ingredients of a tooth paste? Give a typical formula.

(e) Discuss the composition of a two phase aerosol system.

(f) Describe the blood level curve for Iv administration.

(g) Give the significance of pH in formulation of liquid orals.

(h) What are the different methods of calculations for isotonicity adjustment in ophthalmic preparations?

———

OCTOBER - 1998

[SM 732] **Sub. Code : 4223**

FOURTH B.Pharm. DEGREE EXAMINATION.

(Revised Regulations)

FORMULATIVE AND INDUSTRIAL PHARMACY

Time : Three hours — Maximum : 90 marks

Two and a half hours — Sec. A & Sec. B : 60 marks

for Sec. A and Sec. B — Section C : 30 marks

Answer Sections A and B in separate answer books.

Answer Section C in the answer sheet provided.

SECTION A — (2 × 15 = 30 marks)

Answer any TWO questions.

1. Write in detail about the different materials used in film coating composition.

2. Explain Rotary Die Process for soft gelatin capsule filling.

3. What is the concept of prolonged action pharmaceuticals? Explain any one approach for such a formulation. (7 + 8)

SECTION B — (6 × 5 = 30 marks)

4. Write briefly on any SIX :

(a) Volume of distribution and biological half life.

(b) Effect of particle size in formulations.

(c) Slugging.

(d) Foam aerosols.

(e) Water for injection.

(f) Colours used in lipsticks.

(g) Stabilization of drugs against oxidation.

(h) Friability test.

APRIL - 1999

[SG 727] **Sub. Code : 4218**

FOURTH B.Pharm. DEGREE EXAMINATION.

(New Regulations)

Paper III — FORMULATIVE AND INDUSTRIAL PHARMACY

Time : Three hours — Maximum : 90 marks

Two and a half hours — Sec. A & Sec. B : 60 marks

for Sec. A and Sec. B — Section C : 30 marks

Answer Sections A and B in separate answer books.

Answer Section C in the answer sheet provided.

SECTION A — (2 × 15 = 30 marks)

Answer any TWO questions.

1. Explain in detail the different official quality control tests for tablets.

2. What is the role of propellants in aerosols? Classify and explain their properties with examples. (3 + 12)

3. Give a detailed account of vehicles and other additives used in the formulation of injections.

4. What is the objective and principle of accelerated stability testing? Explain.

SECTION B — (6 × 5 = 30 marks)

5. Answer any SIX of the following :

(a) Write a note on dusting powders.

(b) Discuss the concept of prolonged action dosage forms.

(c) Describe the fluidized bed coating of tablets.

(d) What are the precautions to be taken during handling and storage of capsules?

(e) What are the essential ingredients of a vanishing cream? Discuss with a formula.

(f) Give the characteristics of blood level curves after oral and IV administration.

(g) Give the principle and working of cyclotron.

(h) What is the role of pH in liquid oral preparations?

(i) What are the different causes of weight variation in tablets?

———

APRIL - 1999

[SG 732] **Sub. Code : 4223**

FOURTH B.Pharm. DEGREE EXAMINATION.

Paper III — FORMULATIVE AND INDUSTRIAL PHARMACY

(Revised Regulations)

Time : Three hours — Maximum : 90 marks

Two and a half hours for Sec. A and Sec. B — Sec. A & Sec. B : 60 marks; Section C : 30 marks

Answer Sections A and B in separate answer books.

Answer Section C in the answer sheet provided.

SECTION A — (2 × 15 = 30 marks)

Answer any TWO questions.

1. Explain in details the various components of an aerosol dosage form.

2. Enumerate the various quality control tests for tablets. Explain in detail the following :

   (a) Weight variation test.

   (b) Disintegration test.

   (c) Friability test.

3. Define microencapsulation. What are its advantages and disadvantages? Explain in details coacervation–phase separation technique. Give examples.

SECTION B — (6 × 5 = 30 marks)

Answer any SIX questions.

4. Write a note on face powders.

5. Classify shampoos giving an example of each type. What is the mechanism by which a shampoo acts?

6. What are the merits and demerits of sustained-release formulations? Explain the principle involved in their formulation.

7. Briefly explain the LAL test for pyrogens.

8. Explain the rotary die process for soft gelatin capsules.

9. Write a note on ophthalmic formulations.

10. Explain the factors affecting the rate of absorption.

11. Write a note on the film coating materials.

OCTOBER - 1999

[KA 727] **Sub. Code : 4218**

FOURTH B.Pharm. DEGREE EXAMINATION.

(New Regulations)

Paper III — FORMULATIVE AND INDUSTRIAL PHARMACY

Time : Three hours — Maximum : 90 marks

Two and a half hours for Sec. A and Sec. B — Sec. A & Sec. B : 60 marks; Section C : 30 marks

Answer Section A and B in separate answer books.

Answer Section C in the answer sheet provided.

SECTION A — (2 × 15 = 30 marks)

Answer any TWO questions.

1. What is accelerated stability testing? Discuss how the shelf–life of a formulation is determined by this method. (15)

2. (a) What are spansules? Discuss in detail manufacturing of spansules. (2 + 5 = 7)

(b) Discuss various quality control tests for parenterals. (8)

3. (a) What are dentifrices? Discuss formulation of tooth pastes. (2 + 6 = 8)

(b) Discuss the problems and their remedies associated with the formulation of oral suspensions. (7)

4. (a) What are the purposes of coating of tablets? Describe various types of coatings possible for tablets. (3 + 4)

(b) What are the requirements for fill material in softgels? Describe the method of manufacturing of softgels. (4 + 4 = 8)

SECTION B — (6 × 5 = 30 marks)

5. Answer any SIX of the following :

(a) What are the manufacturing techniques of effervescent granules? Discuss one of them.

(b) Explain the significance of seal coat in sugar coating of tablets.

(c) Explain the significance of enteric coating. Give the requirements of enteric coating materials.

(d) How the problem of solubility in the formulation of oral solutions with poorly water soluble drugs are overcome?

(e) Discuss various diagnostic and therapeutic applications of radiopharmaceuticals.

(f) What is meant by shelf–life of pharmaceuticals? How is shelf–life predicted?

(g) Give an account of applications of various medical gases.

(h) Discuss in brief formulation of shampoos.

(i) What is propellant 112? Explain the basis of its numbering.

———

OCTOBER - 1999

[KA 732] **Sub. Code : 4223**

FOURTH B.Pharm. DEGREE EXAMINATION.

(Revised Regulations)

FORMULATIVE AND INDUSTRIAL PHARMACY

Time : Three hours — Maximum : 90 marks

Two and a half hours — Sec. A & Sec. B : 60 marks

for Sec. A and Sec. B — Section C : 30 marks

Answer Sections A and B in separate answer books.

Answer Section C in the answer sheet provided.

SECTION A — (2 × 15 = 30 marks)

Answer any TWO questions.

1. What are the advantages of sugar coating? Explain the sugar coating process in detail. (3 + 12)

2. With the help of a flow diagram, explain the layout of a parenteral section. How do you ensure the sterility of an aseptic area? (11 + 4)

3. Explain the different factors to be considered in the design of sustained action dosage forms. Discuss the preparation of "matrices" for the sustained release. (15)

SECTION B — (6 × 5 = 30 marks)

4. Write short notes on any SIX :

(a) Ophthalmic drops.

(b) Accelerated stability studies.

(c) Aerosol propellants.

(d) Preservation of Pharmaceuticals.

(e) Formulation of Lipstick.

(f) Formulations enclosed in soft gelatin capsules.

(g) Capping and Lamination of tablets.

(h) Mechanism of action of shampoos.

APRIL - 2000

[KB 732] **Sub. Code : 4223**

FOURTH B.Pharm. DEGREE EXAMINATION.

(Revised Regulations)

Paper III — FORMULATIVE AND INDUSTRIAL PHARMACY

Time : Three hours — Maximum : 90 marks

Two and a half hours — Sec. A & Sec. B : 60 marks

for Sec. A and Sec. B — Section C : 30 marks

Answer Sections A and B in separate answer books.

Answer Section C in the answer sheet provided.

SECTION A — (2 × 15 = 30 marks)

Answer any TWO questions.

1. Classify and describe the various aerosol systems.

2. What are the characteristics of an ideal lipstick? Discuss the properties of the various ingredients included in the lipstick formulation. Briefly explain the manufacturing process.

3. Discuss the various steps involved in the preformulation studies.

SECTION B — (6 × 5 = 30 marks)

Answer any SIX questions.

4. Write short notes on :
   (a) Tablet implants
   (b) Dental cones.

5. What are pyrogens? What are their properties? How do you prepare water for injection?

6. Write a note on the excipients used in soluble tablets.

7. What are the various methods of achieving sustained release from formulations?

8. Write a note on the nature of the soft gelatin capsule contents.

9. With a neat diagram explain the working of a metered aerosol valve.

10. Discuss the formulation aspects of a cold cream.

11. Write a note on blister packing.

———————

OCTOBER - 2000

[KC 732] **Sub. Code : 4223**

FOURTH B.Pharm. DEGREE EXAMINATION.

(Revised Regulations)

Paper III — FORMULATIVE AND INDUSTRIAL PHARMACY

Time : Three hours — Maximum : 90 marks

Two and a half hours for Sec. A and Sec. B — Sec. A & Sec. B : 60 marks, Section C : 30 marks

Answer Sections A and B in separate answer books.

Answer Section C in the answer sheet provided.

SECTION A — (2 × 15 = 30 marks)

Answer any TWO questions.

Answer should be specific.

1. Explain various granulation techniques in Tablet technology. How are compressed tablet evaluated? (7 + 8)

2. Explain the principle of stability testing to find, expiry date. How containers and closures help in stabilising dosage forms? Explain the concept of overages with examples. (8 + 5 + 2)

3. Explain how are aerosol based formulations made giving details on containers, valves filling and assembling. How spray pattern and globale size of the spray are assessed? Give pharmaceutical applications of aerosols. (8 + 5 + 2)

SECTION B — (6 × 5 = 30 marks)

Answer any SIX questions.

All questions carry equal marks.

4. Organoleptic additives : Give its importance in formulation with examples.

5. Briefly discuss physical properties of drugs influenzing formulation.

6. Detail on phase coacervation technique for making microcapsules. Give its application.

7. Detail on design of an aseptic room and its validation.

8. How eye ointments formulated and packed?

9. Explain the formulation of Nail polish.

10. What are liposomes? How are they useful for targetted drug delivery?

11. Explain the following :

(a) Total body clearence

(b) Bioequivalence.

———————