

DOCTOR OF PHARMACY (PHARM. D) DEGREE EXAMINATION**THIRD YEAR****PAPER VI – PHARMACEUTICAL FORMULATIONS***Q.P. Code: 383818***Time: Three Hours****Maximum: 100 marks****Answer ALL questions in the same order.****I. Elaborate on :****Pages Time Marks
(Max.) (Max.) (Max.)**

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|-------------------------------------------------------------------------------------------------------------------------|----|---------|----|
| 1. Explain the different granulation techniques. Discuss the official quality control studies of tablets. | 17 | 40 min. | 20 |
| 2. Write in detail about the production facilities for parenteral formulation. Explain the importance of sterilization. | 17 | 40 min. | 20 |

II. Write notes on :

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|-----------------------------------------------------------------------|---|---------|---|
| 1. Classify pharmaceutical dosage forms. | 4 | 10 min. | 6 |
| 2. Discuss the various excipients used in tablet formulation. | 4 | 10 min. | 6 |
| 3. Explain the steps involved in sugar coating of tablets. | 4 | 10 min. | 6 |
| 4. Discuss the theory behind emulsifying agents. | 4 | 10 min. | 6 |
| 5. How will you evaluate the physical stability of suspensions? | 4 | 10 min. | 6 |
| 6. Explain the different types of ointment bases. | 4 | 10 min. | 6 |
| 7. Define pyrogens. Describe pyrogen test. | 4 | 10 min. | 6 |
| 8. Discuss the theory behind controlled drug delivery system? | 4 | 10 min. | 6 |
| 9. Explain the different evaluations involved in transdermal patches. | 4 | 10 min. | 6 |
| 10. What are ocuserts? Explain its formulation methodology. | 4 | 10 min. | 6 |

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Pages (Max.)	Time (Max.)	Marks (Max.)
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1. Define tablets.

Explain in detail about different excipients used in tablets.	17	40 min.	20
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2. Define an emulsion.

Explain in detail about formulation and evaluation of an emulsion.	17	40 min.	20
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II. Write notes on :

1. Wet granulation Method and its limitations.

4	10 min.	6
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2. Raw materials used in hard gelatin capsule shell.

4	10 min.	6
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3. Glass containers used in parenterals.

4	10 min.	6
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4. Explain the concept of controlled drug delivery systems.

4	10 min.	6
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5. Define a dosage form. Give the classification of dosage form.

4	10 min.	6
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6. Ointment bases used in ophthalmic preparation.

4	10 min.	6
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7. Advantages of coating of tablets.

4	10 min.	6
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8. Methods of manufacturing soft gelatin capsules.

4	10 min.	6
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9. Factors affecting absorption of Ointment.

4	10 min.	6
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10. Weight variation test for tablets.

4	10 min.	6
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DOCTOR OF PHARMACY (PHARM. D) DEGREE EXAMINATION

THIRD YEAR

PAPER VI – PHARMACEUTICAL FORMULATIONS

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Pages (Max.)	Time (Max.)	Marks (Max.)
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|-------------------------------------------------------------------------------------------------------------------------------|----|---------|----|
| 1. Explain the different production methods of soft gelatin capsules with reference to capsule sizes? | 17 | 40 min. | 20 |
| 2. Differentiate small volume and large volume parenterals ?
Explain the various official parenteral container evaluation? | 17 | 40 min. | 20 |

II. Write Note on:

- | | | | |
|------------------------------------------------------------------------------|---|---------|---|
| 1. Explain different types of tablets? | 4 | 10 min. | 6 |
| 2. What are the factors affecting skin absorption? | 4 | 10 min. | 6 |
| 3. Describe wet granulation in tablet formulation? | 4 | 10 min. | 6 |
| 4. Discuss different types of emulsions. | 4 | 10 min. | 6 |
| 5. Explain the different additives used in parenteral formulations. | 4 | 10 min. | 6 |
| 6. Explain controlled drug delivery thorough buccal route of administration. | 4 | 10 min. | 6 |
| 7. Define jellies? Explain the different types of jellies? | 4 | 10 min. | 6 |
| 8. Write the merits and demerits of suspensions. | 4 | 10 min. | 6 |
| 9. Define solutions? Discuss the stability of solutions. | 4 | 10 min. | 6 |
| 10. Explain the bloom strength. | 4 | 10 min. | 6 |

DOCTOR OF PHARMACY (PHARM. D) DEGREE EXAMINATION

THIRD YEAR

PAPER VI – PHARMACEUTICAL FORMULATIONS

Q.P. Code: 383818

Time: Three Hours

Maximum: 100 marks

Answer All questions

I. Elaborate on:

(2 x 20 = 40)

1. Explain the formulation of tablet by wet granulations process ?
Discuss the different steps involved in tablet compression?
2. What is Transdermal Patches?
Explain the criteria of suitable drug candidates for transdermal patches?
Discuss the different types of Transdermal Patches?

II. Write notes on:

(10 x 6 = 60)

1. Name the different types of coating? Explain any one
2. Explain any one method of preparation of soft gelatin capsule
3. Discuss hard gelating capsule quality control studies?
4. Discuss the methods used in emulsion identification
5. What are the applications of emulsions
6. Describe any one method of parenteral sterilization as per official monograph
7. Explain theory of sedimentation?
8. Explain preparation methodology of suppositories?
9. Discuss the nasal absorption enhancers
10. Define and classify implants? Discuss any one type of implants

[LD 818]

OCTOBER 2013

Sub. Code: 3818

DOCTOR OF PHARMACY (PHARM. D) DEGREE EXAMINATION

THIRD YEAR

PAPER VI – PHARMACEUTICAL FORMULATIONS

Q.P. Code: 383818

Time: Three Hours

Maximum: 70 marks

Answer All questions

I. Elaborate on:

(2 x 20 = 40)

1. Explain briefly about the sugar coating and film coating.
Write the processing problems and its remedies for tablet coating.
2. Define prolonged action dosage form. Write their advantages and disadvantages.
Explain different mechanisms of drug release from prolonged action dosage forms.

II. Write notes on:

(10 x 3 = 30)

1. Write a note on pharmaceutical dosage forms.
2. List out the tests used for the determination of emulsion and explain any one of them in detail.
3. Explain the factors affecting the absorption of drug from rectal drug delivery system.
4. Discuss the agents used to enhance the solubility of therapeutic agents in solutions.
5. Write the precautions to be taken before administration of ophthalmic preparation.
6. Write the note on excipients used in the direct compression of tablets.
7. Explain the evaluation of hard gelatin capsules.
8. Write the mechanism of disintegration of tablets.
9. Write the advantages of parenteral preparations.
10. Explain the ideal drug candidates for the buccal drug delivery system.

[LE 818]

APRIL 2014

Sub. Code: 3818

DOCTOR OF PHARMACY (PHARM. D) DEGREE EXAMINATION

THIRD YEAR

PAPER VI – PHARMACEUTICAL FORMULATIONS

Q.P. Code: 383818

Time: Three Hours

Maximum: 70 marks

Answer All questions

I. Elaborate on:

(2 x 20 = 40)

1. List out and explain the quality control evaluation of tablets.
2. What are implants?
Explain their merits and demerits and explain the approaches to the development of implantable therapeutic system.

II. Write notes on:

(10 x 3 = 30)

1. Explain the steps in sugar coating.
2. Rotary die process in the manufacture of soft gelatin capsule.
3. Classify dosage form on the basis of physical state.
4. Buccal tablets.
5. Jellies.
6. Glass containers used for parenterals.
7. Methods to enhance the solubility of substance.
8. Applications of suspensions.
9. Explain about flocculation and creaming.
10. Elixirs.

[LF 818]

OCTOBER 2014

Sub. Code: 3818

DOCTOR OF PHARMACY (PHARM. D) DEGREE EXAMINATION

(2009-2010 Regulation)

THIRD YEAR

PAPER VI – PHARMACEUTICAL FORMULATIONS

Q.P. Code: 383818

Time: Three Hours

Maximum: 70 marks

Answer All questions

I. Elaborate on:

(4 x 10 = 40)

1. Define and classify capsule.
Explain about different sizes and filling of hard gelatin capsules.
2. Define Ointment and classify Ointment bases with example and explain about oleaginous bases.
3. Explain the Formulation, Classification and Evaluation of Suspension.
4. Write about Filling and Evaluation of soft gelatin capsule.

II. Write notes on:

(6 x 5 = 30)

1. Methods of preparation of primary emulsion.
2. What are the advantages and disadvantages of implants?
3. Enumerate the manufacturing defects of Tablets.
4. What are evaluation tests for filled Ampoules?
5. Write a note on Nasal Drug delivery system.
6. Process of Gelatin production from animal source.

DOCTOR OF PHARMACY (PHARM. D) DEGREE EXAMINATION

(2009-2010 Regulation)

THIRD YEAR

PAPER VI – PHARMACEUTICAL FORMULATIONS

Q.P. Code: 383818

Time: Three Hours

Maximum: 70 marks

Answer All questions

I. Elaborate on:

(4 x 10 = 40)

1. Explain various granulation techniques involved in formulation of tablet.
2. Explain the methods of formulation and identification of emulsion.
3. Write a note on parenteral glass containers and its official evaluation tests.
4. Explain about the preparation and evaluation methods of Transdermal drug delivery system.

II. Write notes on:

(6 x 5 = 30)

1. Describe about Ocular drug delivery system.
2. Briefly write on Quality Control Test for soft gelatin capsule.
3. Define:
 - (a) Bloom Strength
 - (b) Base absorption and Gram/Minim factor.
4. What are the methods to maintain Aseptic condition?
5. Write a note on Direct Compression of tablet with example.
6. Write a brief note on formulation of Jellies.

[LH 818]

OCTOBER 2015

Sub. Code: 3818

PHARM. D DEGREE EXAMINATION

(2009-2010 Regulation)

THIRD YEAR

PAPER VI – PHARMACEUTICAL FORMULATIONS

Q.P. Code : 383818

Time: Three Hours

Maximum: 70 marks

Answer ALL questions

I. Elaborate on :

(4 x 10 = 40)

1. Discuss in detail about various approaches for the development of implantable drug delivery system.
2. Describe in detail about Evaluation of large volume parenteral products.
3. Demonstrate the working principle of Rotary tablet compression machine with diagram.
4. Write in detail about steps involved in manufacturing of hard gelatin capsule shell.

II. Write notes on :

(6 x 5 = 30)

1. Write a note on formulation excipients used in tablet manufacturing.
2. Distinguish between hard and soft Gelatin capsules.
3. State the significance of Stokes equation in the formulation of suspension.
4. Explain identification test for an emulsion.
5. Add a note on preservatives used for oral liquid formulations.
6. Describe formulation of ophthalmic ointment.

[LI 818]

APRIL 2016

Sub. Code: 3818

PHARM. D DEGREE EXAMINATION
(2009-2010 Regulation)
THIRD YEAR
PAPER VI – PHARMACEUTICAL FORMULATIONS

Q.P. Code : 383818

Time : Three hours

Maximum : 70 Marks

I. Elaborate on :

(4 x 10 = 40)

1. Explain briefly the various steps involved in Sugar Coating of Tablets. Write the processing problems and its remedies for tablet coating.
2. Define prolonged action dosage form. Write their advantages and disadvantages. Explain the formulation and evaluation of Transdermal patches.
3. Write in detail about the production facilities for Parenteral formulation. Explain the formulation and evaluation of small volume Parenterals.
4. Define and classify Capsule. Explain the manufacturing and evaluation of soft gelatin capsules.

II. Write notes on:

(6 x 5 = 30)

1. Write the various tests used for identification of types of emulsion.
2. Explain the factors affecting the absorption of drug from rectal drug delivery system.
3. Write briefly the prolonged release Parenteral preparations.
4. Write the precautions to be taken before administration of Ophthalmic preparation.
5. Write a note on Jellies.
6. Explain the preparation of suppositories.

[LJ 818]

OCTOBER 2016

Sub. Code: 3818

PHARM. D DEGREE EXAMINATION
(2009-2010 Regulation)
THIRD YEAR
PAPER VI – PHARMACEUTICAL FORMULATIONS

Q.P. Code : 383818

Time : Three hours

Maximum : 70 Marks

I. Elaborate on:

(4 x 10 = 40)

1. Describe the preparation and evaluation of Rectal drug delivery system.
2. Define an emulsion. Explain in detail about formulation and evaluation of an emulsion.
3. Explain the various problems occurs in the manufacturing of Tablets. Write a note on to overcome this problems.
4. Explain the different types of Ointment bases used. Write the method of preparation and types of packaging used.

II. Write notes on:

(6 x 5 = 30)

1. Define and differentiate drug and dosage form.
2. Define novel drug delivery systems, write their merits and demerits.
3. Write the various types of gelatin used in the manufacture of capsule.
4. Define Implants and write its advantages.
5. Write briefly on Slugging.
6. Write briefly on Ocular inserts.

[LK 818]

MAY 2017

Sub. Code: 3818

PHARM. D DEGREE EXAMINATION
(2009-2010 Regulation)
THIRD YEAR
PAPER VI – PHARMACEUTICAL FORMULATIONS

Q.P. Code : 383818

Time : Three hours

Maximum : 70 Marks

I. Elaborate on:

(4 x 10 = 40)

1. Describe various methods of sterilization for parenteral products in detail.
2. Explain different stages involved in sugar coating process of compressed tablets.
3. Give the detailed account of the formulation additives used for manufacturing of suspensions.
4. Explain the different methods of manufacturing of parenteral microspheres.

II. Write notes on:

(6 x 5 = 30)

1. Add a note on 'uniformity of weight' test for tablet dosage form as per IP. (Indian Pharmacopoeia).
2. Discuss the applications of emulsions.
3. Describe the operation of Dosater filling equipment for capsule dosage form.
4. Write a note on container and closure used for packaging of ophthalmic formulations.
5. Explain the limulus amoebocyte lysate (LAL) test for pyrogens.
6. Explain the term displacement value and its importance in formulation of suppositories.

[LL 818]

OCTOBER 2017

Sub. Code: 3818

PHARM. D DEGREE EXAMINATION
(2009-2010 Regulation)
THIRD YEAR
PAPER VI – PHARMACEUTICAL FORMULATIONS

Q.P. Code : 383818

Time : Three hours

Maximum : 70 Marks

I. Elaborate on:

(4 x 10 = 40)

1. Describe the reasons for Tablet Coating. Explain various types of coating used for Tablets.
2. Explain the various sterilization techniques adopted in Parenteral formulation.
3. Write the advantages of transdermal patches. Explain the method of preparation and evaluation of transdermal patches.
4. Define Biphasic Liquid Dosage forms. Explain the formulation and evaluation of suspension.

II. Write notes on:

(6 x 5 = 30)

1. Write briefly the quality control lists for tablets.
2. Define Suppositories. Write their merits and demerits.
3. Discuss the various additives used in capsule formulation.
4. Write about double impression, orange peel and mottling.
5. Write briefly on ocular inserts.
6. Explain briefly on different types of Emulgents.

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[LM 818]

MAY 2018

Sub. Code: 3818

**PHARM. D DEGREE EXAMINATION
(2009-2010 Regulation)
THIRD YEAR
PAPER VI – PHARMACEUTICAL FORMULATIONS**

Q.P. Code : 383818

Time : Three hours

Maximum : 70 Marks

I. Elaborate on:

(4 x 10 = 40)

1. Describe various methods of manufacturing of tablets.
2. Define capsule. Explain the manufacturing of soft gelatin capsules by rotary die process.
3. Describe the formulation and evaluation of emulsions.
4. What are called small volume and large volume parenteral? Write the quality control tests for parenteral formulation.

II. Write notes on:

(6 x 5 = 30)

1. Write the various tests for identification of types of emulsion.
2. Describe the formulation of Jellies.
3. Write the advantages and limitation of trans dermal drug delivery systems.
4. Write a note of implants.
5. Explain the manufacturing defects of tablets.
6. Write briefly the formulation of suspension.

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[LO 818]

MAY 2019

Sub. Code: 3818

**PHARM. D DEGREE EXAMINATION
(2009-2010 Regulation)
THIRD YEAR
PAPER VI – PHARMACEUTICAL FORMULATIONS**

Q.P. Code : 383818

Time : Three hours

Maximum : 70 Marks

I. Elaborate on:

(4 x 10 = 40)

1. Explain the different granulation techniques used in the formulation of tablets.
2. Write a note on Nasal drug delivery system and explain about the mechanism of absorption enhancers.
3. Classify different types of suppositories and explain about cold compression method.
4. Describe the method of formulation for primary emulsion with different ratios of gum.

II. Write notes on:

(6 x 5 = 30)

1. Classify liquid dosage forms.
2. Describe friability test process.
3. Write a note on enteric coated tablets.
4. What are the methods adopted to maintain aseptic conditions?
5. Briefly explain manual method of capsule filling.
6. Define the following:
 - a) Blooms strength
 - b) Creaming
 - c) Pharmagel
 - d) Mottling
 - e) Chipping.
