

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

(LM 2005)

MARCH 2018

Sub. Code: 2005

B.PHARM. DEGREE EXAMINATION
PCI Regulation SEMESTER – I
PAPER III – PHARMACEUTICS – I

Q.P. Code: 562005

Time: Three hours

Maximum: 75 Marks

I. Elaborate on: Answer any TWO questions. (2 x 10 = 20)

1. Define Prescription. Discuss various parts of prescription with an example.
2. Define Emulsion. Write the methods of preparations and identification tests for determination of types of Emulsion.
3. Define Suppository. Classify suppository bases. Explain in detail the methods of preparation and write the ideal properties of suppository bases.

II. Write notes on: Answer any SEVEN questions. (7 x 5 = 35)

1. Write about the Career opportunities in Pharmacy profession.
2. Define dosage forms and give its classification.
3. a) Prepare 150 ml of 4% potassium permanganate solution and label with directions for preparing 500ml of 1 in 2500 solution.
b) Prepare 400ml of 70% alcohol from 95% alcohol (By Alligation).
4. Write note on: Hygroscopic, Efflorescent & Deliquescent powders.
5. Define Syrup. Write the advantages, disadvantages and methods of preparations.
6. Distinguish the following with examples:
a) Lotions with Liniments. b) Gargles with Mouth washes.
7. Differentiate Flocculated and Deflocculated suspensions.
8. What are the causes of Physical incompatibilities and how to overcome?
9. Define Ointment. Write the types and ideal properties of ointment bases.

III. Short answers on: Answer ALL questions. (10 x 2 = 20)

1. Define Pharmacopoeia and list out the Pharmacopoeias which are being referred extensively.
2. Excipients used in formulation of liquid dosage forms.
3. Write the formulae by which doses can be calculated depending on age.
4. Define Proof Spirit.
5. Write the classification of Powders.
6. Write about Eutectic mixtures.
7. What is Draught?
8. Define Suspension and give examples of suspending agents.
9. What is therapeutic Incompatibility and write the sources of errors?
10. Define Gels. What are the different gelling agents?

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

(LN 2005)

SEPTEMBER 2018

Sub. Code: 2005

B.PHARM. DEGREE EXAMINATION
PCI Regulation SEMESTER – I
FIRST YEAR
PAPER III – PHARMACEUTICS – I

Q.P. Code: 562005

Time: Three hours

Maximum: 75 Marks

I. Elaborate on: Answer any TWO questions.

(2 x 10 = 20)

1. Define posology. Discuss the factors affecting selection of dose.
2. Classify powders with suitable examples. Write a note on advantages and disadvantages of powders.
3. Define incompatibility. Explain therapeutic incompatibility with examples.

II. Write notes on: Answer any SEVEN questions.

(7 x 5 = 35)

1. Brief note on Indian pharmacopoeia.
2. Write about eutectic and effervescent powders.
3. Discuss physical stability of suspension.
4. Differentiate ointments and pastes.
5. Give the classification of emulsifying agents with examples.
6. Discuss the evaluation tests for suppository.
 - a) Calculate the quantity of sodium chloride required for 500 ml of a 0.9 percent solution.
 - b) Prepare 600 ml of 60 percent alcohol from 95 percent alcohol.
7. Write about the preparation of Gels.
8. Write a note on handling of prescription.
9. What are throat paints? Give the preparation of any one official throat paint.

III. Short answers on: Answer ALL questions.

(10 x 2 = 20)

1. What is a Pharmacopoeia?
2. Define superscription.
3. Give Fried's formula.
4. What is proof spirit?
5. What are efflorescent powders?
6. What do you mean by organoleptic additives?
7. What is a co solvent? Give an example.
8. How do you lubricate a suppository mould?
9. What is Forbe's method?
10. What is degree of flocculation?

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

(LO 2005)

MARCH 2019

Sub. Code: 2005

B.PHARM. DEGREE EXAMINATION
PCI Regulation SEMESTER – I
PAPER III – PHARMACEUTICS – I

Q.P. Code: 562005

Time: Three hours

Maximum: 75 Marks

I. Elaborate on: Answer any TWO questions.

(2 x 10 = 20)

1. Discuss the various solubility enhancement techniques.
2. Write the mechanism of dermal penetration. Explain the method of preparation of creams.
3. What are suspensions? Give classification of suspensions. Explain different components used for preparation of suspension.

II. Write notes on: Answer any SEVEN questions.

(7 x 5 = 35)

1. Discuss history and development of profession of pharmacy in India.
2. Discuss different errors in prescription.
3. a) How will you prepare 200 ml of 60 percent alcohol from 90 percent and 50 percent alcohols.
b) Calculate the dose for a 9 years old child when the adult dose is 250mg.
4. Discuss the bulk powders which meant for external use.
5. Write a note on Elixir. Give the difference between Syrup and Elixir.
6. Discuss the Suspending agents used to stabilize the suspensions.
7. Write note on Instability of emulsions.
8. Explain how Suppositories are evaluated.
9. Give the fusion method preparation of ointment with a suitable example.

III. Short answers on: Answer ALL questions.

(10 x 2 = 20)

1. What do you understand by Indian Pharmacopoeia?
2. Give advantages and disadvantages of liquid dosage form.
3. What is an inscription?
4. How pediatric dose is calculated on the basis of body weight?
5. Give the types of dusting powders.
6. What are Preservatives? Give an example.
7. What are Ear drops?
8. Give the qualities of a good suspension.
9. What are Emulsifying agents? Give examples.
10. Differentiate between ointments and pastes.

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

(LP 2005)

SEPTEMBER 2019

Sub. Code: 2005

B.PHARM. DEGREE EXAMINATION
PCI Regulation SEMESTER – I
PAPER III – PHARMACEUTICS – I

Q.P. Code: 562005

Time: Three hours

Maximum: 75 Marks

I. Elaborate on: Answer any TWO questions.

(2 x 10 = 20)

1. Define semisolids. Write about different ointment bases.
2. Differentiate flocculated and deflocculated suspension. Write a note on stability problems of suspensions.
3. Write the evaluation tests for Ointments.

II. Write notes on: Answer any SEVEN questions.

(7 x 5 = 35)

1. Write in brief about Pharmacy as a career.
2. Write about errors in prescription.
3. Explain geometric dilution.
4. Give the formulation of elixir with suitable examples.
5. Explain solubility enhancement methods.
6. Write the various tests to identify the type of emulsion.
7. Give the properties of an ideal suppository base.
8. Write in brief about alkaloidal incompatibility with suitable examples and methods to overcome it.
9. Write the factors affecting dermal penetration of drugs.

III. Short answers on: Answer ALL questions.

(10 x 2 = 20)

1. Define mouthwash and gargle.
2. What is an excipient? Give example.
3. Write any two dose calculation formulas based on age.
4. What is Extra Pharmacopoeia?
5. Define isotonic solution.
6. What are efflorescent powders?
7. What is phase inversion?
8. What is a flocculating agent?
9. What is Lugol's solution?
10. Use of calamine and bentonite in calamine lotion.

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

[LR 0121]

JANUARY 2021

Sub. Code: 2005

(MARCH 2020 EXAM SESSION)

B. PHARMACY DEGREE EXAMINATION

PCI Regulation SEMESTER – I

PAPER III – PHARMACEUTICS - I

Q.P. Code: 562005

Time: Three hours

Maximum: 75 Marks

I. Elaborate on: Answer any TWO questions.

(2 x 10 = 20)

1. Define Dosage forms. Classify various types of dosage forms with examples and mention its advantages and disadvantages.
2. Define and classify Emulsion. Discuss about types of emulsifying agent and elaborate on various methods of emulsion preparation and stability problems associated with emulsion on storage.
3. Define Incompatibility. Explain about different types of incompatibility with suitable examples and mention about its remedies.

II. Write notes on: Answer any SEVEN questions.

(7 x 5 = 35)

1. Write in detail about different edition and volumes of Indian Pharmacopoeia.
2. Explain about different parts of Prescription.
3. Enumerate the factors affecting Posology.
4. Give the complete classification of powders with example
5. a. Calculate the volume of each of 90%, 60%, 30% of alcohol and water required to produce 500 ml of 50% alcohol.
b. What % strength corresponds to 40^o O/P and 50^o U/P?
6. Mention the difference between Lotion and Liniment.
7. Differentiate Flocculated and Deflocculated system.
8. Give the property of Ideal suppository base.
9. Explain in detail about preparation and evaluation of Gels.

III. Short answers on: Answer ALL questions.

(10 x 2 = 20)

1. What is Martindale?
2. Imperial and Metric system
3. Methods used for measuring Isotonicity.
4. Write about Fried's rule.
5. Explain Forbe's method.
6. Is there any need of suspending agent in milk of Magnesia? Why.
7. Write about Calibration of suppository mould.
8. Characteristics of Hygroscopic powders. Give example.
9. Define Enema and mention its type.
10. Ideal properties of Ointment base.

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

[BPHARM 0921]

**SEPTEMBER 2021
(SEPTEMBER 2020 EXAM SESSION)**

Sub. Code: 2005

**B.PHARM. DEGREE EXAMINATION
PCI Regulation 2017 – SEMESTER I
PAPER III – PHARMACEUTICS - I
*Q.P. Code: 562005***

Time: Three hours

Maximum: 75 Marks

I. Elaborate on: Answer any TWO questions.

(2 x 10 = 20)

1. Define Pharmacopoeia. Explain about its significance. Give a brief review on the development of Indian Pharmacopoeia and British Pharmacopoeia.
2. Define Posology. Enumerate the factors affecting posology. How paediatric dose is calculated on the basis of age, bodyweight and body surface area.
3. Define Incompatibility. Describe about various types of incompatibility with examples and provide its remedies.

II. Write notes on: Answer any SEVEN questions.

(7 x 5 = 35)

1. Explain about different parts of Prescription.
2. a. How much ml of 30% dextrose in water and 60% dextrose in water are needed to make 750 ml of 45% dextrose in water?
b. What % strength corresponds to 40⁰ O/P and 60⁰ U/P
3. Discuss about Powders used for external use with examples
4. Write about method of preparation of Throat Paint and its application.
5. Differentiate Flocculated and Deflocculated suspension.
6. Explain different methods of preparation of Emulsion.
7. Describe the properties of Ideal suppository base.
8. What are pastes? Give its salient features. Comment on preparation of paste.
9. Classify gels and enlist components used in preparation of gels.

III. Short answers on: Answer ALL questions.

(10 x 2 = 20)

1. Mention two stability problems associated with Emulsion.
2. Difference between Simple and Compound powder. Give example
3. If the adult dose is 60 mg and the age of child is 6 years what will be the dose for the child according to Dilling's rule.
4. Convert 90% v/v alcohol into its proof strength.
5. Explain Synergistic effect.
6. What is mean by Counter irritant? Give example.
7. Write about Diffusible and Indiffusible solids.
8. Define the term Displacement value.
9. Define emulsion.
10. Mention about types of Ointment bases.

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

[BPHARM 0122]

**JANUARY 2022
(MARCH 2021 EXAM SESSION)**

Sub. Code: 2005

B.PHARMACY DEGREE COURSE (SEMESTER EXAMINATIONS)

PCI Regulation 2017 – SEMESTER I

PAPER III – PHARMACEUTICS - I

Q.P. Code: 562005

Time: Three hours

Maximum: 75 Marks

I. Elaborate on: Answer any TWO questions.

(2 x 10 = 20)

1. Define Prescription. Explain about different parts of Prescription. Discuss about handling of Prescription and rectification of Errors in Prescription.
2. Define and classify Suppositories. Explain about different method of preparation and its ideal properties.
3. Define and classify Gels. Explain in detail about preparation and evaluation of Gels

II. Write notes on: Answer any SEVEN questions.

(7 x 5 = 35)

1. Give note on the different edition and volumes of Indian Pharmacopoeia.
2. a. How much ml of 20% dextrose in water and 50% dextrose in water are needed to make 750 ml of 35% dextrose in water?
b. What % strength corresponds to 30⁰ O/P and 40⁰ U/P?
3. Give the complete classification of Powders with example.
4. Discuss about different excipients used in Liquid dosage forms?
5. Define Syrup. Mention its type and method of preparation.
6. Elaborate different stability problems associated with Emulsions and mention how to overcome it.
7. Write the difference between Flocculated and Deflocculated suspension.
8. What is meant by Physical incompatibility? Give examples.
9. What are Pastes? Give its salient features .Comment on preparation of Paste.

III. Short answers on: Answer ALL questions.

(10 x 2 = 20)

1. What is Extra Pharmacopoeia?
2. If the adult dose is 60 mg and the age of child is 4 years what will be the dose for child according to Young' rule?
3. What is Ostwald Ripening?
4. Give a note on Flocculation.
5. How to avoid Creaming in emulsion?
6. Define Microemulsion.
7. What is Zwitterion? Give Example.
8. What is meant by Synergistic effect?
9. What is the direction to be given while taking effervescent powders?
10. Write about Pessaries.

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

[BPHARM 0522]

**MAY 2022
(SEPTEMBER 2021 EXAM SESSION)**

Sub. Code: 2005

**B.PHARM. DEGREE EXAMINATION
PCI Regulation 2017 – SEMESTER I
PAPER III – PHARMACEUTICS - I
*Q.P. Code: 562005***

Time: Three hours

Maximum: 75 Marks

I. Elaborate on: Answer any TWO questions.

(2 x 10 = 20)

1. Define Prescription. Write a brief note on parts of the prescription and handling of prescription.
2. What are Powders? Classify the powders with examples. Add a note on efflorescent powder.
3. Define suppositories. Write about the suppository bases.

II. Write notes on: Answer any SEVEN questions.

(7 x 5 = 35)

1. Differences between Lotions and Liniments
2. Write the formulas involved in the calculation of child dose.
3. Give a brief note on Indian pharmacopoeia.
4. Explain the methods to improve solubility of drugs.
5. Write a brief note on various methods to prepare emulsion
6. Give a brief note on Therapeutic Incompatibility
7. What are the Excipients used in semisolid dosage forms?
8. Classify the dosage forms with examples.
9. What are the various factors affecting Posology?

III. Short answers on: Answer ALL questions.

(10 x 2 = 20)

1. Define Proof spirit.
2. What is stokes law?
3. Write about Pessaries.
4. What are Geometric dilutions?
5. Define Throat paints.
6. What is displacement value?
7. What are Gels?
8. What is the role of emulsifying agent in emulsion formation?
9. What is meant by degree of flocculation
10. What are elixirs?

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

[BPHARM 1022]

**OCTOBER 2022
(MARCH 2022 EXAM SESSION)**

Sub. Code: 2005

B.PHARMACY DEGREE COURSE (SEMESTER EXAMINATIONS)

PCI Regulation 2017 – SEMESTER I

PAPER III – PHARMACEUTICS - I

Q.P. Code: 562005

Time: Three hours

Maximum: 75 Marks

I. Elaborate on: Answer any TWO questions.

(2 x 10 = 20)

1. Define Posology. What are the factors affecting Posology?
2. Define emulsion. Explain in detail stability problems of emulsion and methods to overcome it.
3. Define Incompatibility. Explain in detail about the chemical incompatibility along with reasons and methods to rectify it.

II. Write notes on: Answer any SEVEN questions.

(7 x 5 = 35)

1. Explain the role of pharmacist in handling of prescription.
2. Write about aqueous bases of suppositories.
3. a. Convert 90% v/v alcohol into Proof strength.
b. Calculate the dose for a child having BSA 0.83m^2
4. Write a note on the opportunities in career of pharmacy.
5. Explain about various types of Powder.
6. Write about the Preparation of Gels.
7. Explain any one type of Therapeutic incompatibility.
8. Differentiate Ointments and Pastes.
9. Explain the methods of preparing syrups.

III. Short answers on: Answer ALL questions.

(10 x 2 = 20)

1. Define Syrups.
2. What is Stokes law?
3. What are suspending agents?
4. Write Dilling's formula and Clark's formula to calculate child's dose.
5. Define Idiosyncrasy.
6. What are gels and creams?
7. What do you mean by organoleptic additives?
8. What are the advantages of suppositories?
9. Define Gargles.
10. What are stabilizers?

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

[B.PHARM 0323]

**MARCH 2023
(SEPTEMBER 2022 EXAM SESSION)**

Sub. Code: 2005

**B.PHARMACY DEGREE COURSE (SEMESTER EXAMINATIONS)
PCI Regulation 2017 – SEMESTER I
PAPER III – PHARMACEUTICS - I**

Q.P. Code: 562005

Time: Three hours

Maximum: 75 Marks

I. Elaborate on: Answer any TWO questions.

(2 x 10 = 20)

1. What are Biphasic Liquid dosage forms? Describe in detail about the various types and method of preparation of Emulsion.
2. Classify liquid dosage forms with examples. What are the advantages and disadvantages of liquid dosage forms? Explain formulation of Liquid dosage forms.
3. Define Suppository. What are its advantages and disadvantages? Explain its preparation techniques.

II. Write notes on: Answer any SEVEN questions.

(7 x 5 = 35)

1. Write a brief note on Pharmacy as a career.
2. Explain the various types of dosage forms for external use.
3. What are the various parts of prescription?
4. Give a note on factors that affect the calculation of doses.
5. Explain a) Hygroscopic powders b) Dusting powders.
6. What are the various excipients used in formulating semisolid dosage forms?
7. a. In what proportion should alcohols of 50 % and 20% strength be mixed to prepare 500 ml of 25% alcohol?
b. Calculate the quantity of sodium chloride required for 200ml of 0.9% solution.
8. How to overcome Physical incompatibilities? Explain with examples.
9. Explain deflocculated suspension.

III. Short answers on: Answer ALL questions.

(10 x 2 = 20)

1. What is Subscription?
2. Give Fried formula.
3. What is cosolvent?
4. Write any one method to identify emulsion.
5. What is solid dispersion?
6. What are eutectic mixtures?
7. Define enemas.
8. Define the term Synergism.
9. Define Pastes.
10. What are the advantages of suppositories?

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

[B.PHARM 0823]

**AUGUST 2023
(MARCH 2023 EXAM SESSION)**

Sub. Code: 2005

**B.PHARMACY DEGREE COURSE (SEMESTER EXAMINATIONS)
PCI Regulation 2017 – SEMESTER I
PAPER III – PHARMACEUTICS – I**

Q.P. Code: 562005

Time: Three hours

Maximum: 75 Marks

I. Elaborate on: Answer any TWO questions.

(2 x 10 = 20)

1. Define Posology. Write in details about the factors influencing the dose of drug.
2. Describe the different additives used in the formulation of liquid dosage form with examples.
3. Define and Classify Emulsion. Explain the stability problems in Emulsion.

II. Write notes on: Answer any SEVEN questions.

(7 x 5 = 35)

1. Write the details about career opportunities in Pharmacy Profession.
2. Why a drug should be converted into dosage form.
3. Explain the parts of prescription.
4. Write the methods to adjust the tonicity.
5. Discuss the methods of mixing of powders.
6. Differentiate Lotion and Liniment.
7. Discuss the therapeutic incompatibility with examples.
8. Write in detail about bases used for suppository.
9. Excipients used in semi solid dosage form.

III. Short answers on: Answer ALL questions.

(10 x 2 = 20)

1. Insufflations.
2. Synergism and Antagonism.
3. What is dusting powder?
4. Write about Eutectic mixture.
5. What are density modifiers?
6. Define Gargles and Mouthwash.
7. Classification of Suspension.
8. Define Displacement value.
9. Viscosifier.
10. Types of Ointment base.

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

[B.PHARM 1223]

**DECEMBER 2023
(SEPTEMBER 2023 EXAM SESSION)**

Sub. Code: 2005

**B.PHARMACY DEGREE COURSE (SEMESTER EXAMINATIONS)
PCI Regulation 2017 – SEMESTER I
PAPER III – PHARMACEUTICS – I**

Q.P. Code: 562005

Time: Three hours

Maximum: 75 Marks

I. Elaborate on: Answer any TWO questions.

(2 x 10 = 20)

1. Define Prescription. Write in detail about the parts of Prescription with an example.
2. Define and Classify Powders. Write in detail about the mixing technique of Powders.
3. Define and classify Incompatibility. Explain the Physical Incompatibility with examples.

II. Write notes on: Answer any SEVEN questions.

(7 x 5 = 35)

1. Write in detail about Pharmacopoeia.
2. Define and classify the dosage forms with examples.
3. Explain the Errors in Prescription.
4. What Isotonic solutions? Differentiate between hypotonic and hypertonic solutions.
5. Explain Dusting powder and Effervescent powder with examples.
6. Differentiate Ointment and Paste.
7. Discuss the Excipients used in the formulation of liquid dosage forms with examples.
8. Write in detail about displacement value and its calculations.
9. Write the evaluation technique of semisolid dosage forms.

III. Short answers on: Answer ALL questions.

(10 x 2 = 20)

1. Young's formula for child dose.
2. Define Poulitices.
3. What are hygroscopic powders?
4. Write about density modifier.
5. What are Organoleptic agents?
6. Define Syrup.
7. Flocculated Suspension.
8. Bases used in suppositories.
9. What are Elixirs?
10. Define Ointment.
