

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

(LP 2046)

SEPTEMBER 2019

Sub. Code: 2046

**B.PHARM. DEGREE EXAMINATION
PCI Regulation – SEMESTER IV
PAPER V – PHARMACOGNOSY AND PHYTOCHEMISTRY– I**

Q.P. Code: 562046

Time: Three hours

Maximum: 75 Marks

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

1. Explain about the various factors influencing the cultivation and collection of Crude drugs.
2. Describe in detail about the nutritional requirements of Plant tissue culture.
3. What are Glycosides? Classify them with suitable examples. Give any two tests for identification of glycosides.

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

1. How will you evaluate crude drugs by physical methods?
2. Give a note on chemotaxonomy.
3. Discuss about the role of auxins and gibberellins in cultivation of a medicinal plant.
4. Write a note on hybridization in medicinal plants.
5. Edible vaccines.
6. Describe the basic principle involved in Siddha system of medicine.
7. Discuss about the properties and tests for identification of flavonoids.
8. Gelatin.
9. Differentiate absorbent and non absorbent cotton.

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

1. Define Pharmacognosy.
2. Stomatal number and stomatal index.
3. List out the methods for drying crude drugs.
4. Define plant tissue culture.
5. Totipotency.
6. Traditional systems of medicine.
7. How will you perform the goldbeater's skin test?
8. Give the biological source, family and uses of bees wax.
9. Write a note on preparation of agar.
10. What are Teratogens?

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

(LQ 2046)

MARCH 2020

Sub. Code: 2046

**B.PHARM. DEGREE EXAMINATION
PCI Regulation – SEMESTER IV
PAPER V – PHARMACOGNOSY AND PHYTOCHEMISTRY– I**

Q.P. Code: 562046

Time: Three hours

Maximum: 75 Marks

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

1. Define the term Pharmacognosy. Write a detail notes on the history and scope of Pharmacognosy.
2. Write an account on Plant hormones and their application in Pharmacognosy.
3. Define the term Plant tissue culture. Write a detail notes on callus culture.

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

1. Pharmacological classification of crude drugs.
2. Chemical evaluation of crude drugs.
3. Leaf constants.
4. Role of Pharmacognosy in Siddha.
5. Write a brief note on Glycosides.
6. Cotton.
7. Acacia.
8. Flavonoids.
9. Sources of drugs from animal origin.

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

1. Alphabetical classification of crude drugs.
2. Organoleptic evaluation.
3. Polyploidy.
4. Chemically undefined medium.
5. Principles involved in Homeopathy.
6. Chemical test for tannins.
7. Hallucinogens.
8. Streptokinase.
9. Chemical test for Honey.
10. Organized drugs.

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

[BPHARM 0321]

MARCH 2021

Sub. Code: 2046

(SEPTEMBER 2020 EXAM SESSION)

B. PHARMACY DEGREE EXAMINATION

PCI Regulation SEMESTER – IV

PAPER V – PHARMACOGNOSY AND PHYTOCHEMISTRY I

Q.P. Code : 562046

Time: Three hours

Maximum: 75 Marks

I. Elaborate on: Answer any TWO questions.

(2 x 10 = 20)

1. Define evaluation. What are the different methods of evaluation of crude drugs? Explain about organoleptic evaluation of crude drugs in detail.
2. Describe the basic principles involved in Ayurveda System of Medicine.
3. Define and classify fibres. Discuss in detail about cotton.

II. Write notes on: Answer any SEVEN questions.

(7 x 5 = 35)

1. Explain morphological classification of crude drugs with suitable examples.
2. Discuss the sexual method of cultivation of crude drugs with its advantages and disadvantages.
3. Write about mutation in medicinal plants.
4. Give the historical developments of tissue culture.
5. Embryo culture.
6. Discuss about plant growth promoters used in tissue culture.
7. What alkaloids? How are they classified? Give example for each group.
8. Write a note on Flavonoids.
9. Describe the anticancer agents from marine source.

III. Short answers on: Answer ALL questions.

(10 x 2 = 20)

1. Differentiate between organized and unorganized drugs.
2. Give two examples for drugs obtained from plant and animal source.
3. Define grafting.
4. Write about the micropropagation of plants.
5. Give the importance of soils in cultivation of crude drugs.
6. Hairy root culture.
7. Sterilizing agents used in tissue culture.
8. What are primary and secondary metabolites?
9. Write about the role of proteolytic enzymes.
10. Cuoxam test.

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

[BPHARM 0122]

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

Sub. Code: 2046

B.PHARMACY DEGREE COURSE (SEMESTER EXAMINATIONS)

PCI Regulation 2017 – SEMESTER IV

PAPER V – PHARMACOGNOSY AND PHYTOCHEMISTRY I

Q.P. Code : 562046

Time: Three hours

Maximum: 75 Marks

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

1. Explain about chemical classification of crude drugs highlighting the advantages and disadvantages.
2. Discuss about methods of cultivation of crude drug drugs from natural origin.
3. Write about the theory and principles of Siddha system of medicine with emphasis on role in Pharmacognosy.

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

1. Scope and development of Pharmacognosy.
2. Plant hormones and their applications.
3. Definition, classification, properties and identification test for Tannins.
4. Natural allergens.
5. Source, preparation, chemistry storage and uses of Gelatin.
6. Novel medicinal agents from marine source.
7. Nutritional requirements in plant tissue culture.
8. Source, preparation, chemistry and commercial uses of Castor oil.
9. Biological method of evaluation.

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

1. Define Vein islet number and Veinlet termination number.
2. Give two examples of animal drugs with source, family, chemical constituents and uses.
3. Write the four types of stomata with examples for each.
4. Give two precautions to be taken to store the crude drugs against oxidation.
5. Define organized and unorganized drugs with examples.
6. Give difference between gums and mucilage.
7. Define Polyploidy.
8. What is Cryopreservation?
9. Write about ballooning effect in Cotton.
10. Source, family, chemical constituents and uses of Bromelain.

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

[BPHARM 0522]

MAY 2022

Sub. Code: 2046

(SEPTEMBER 2021 EXAM SESSION)

B. PHARMACY DEGREE EXAMINATION

PCI Regulation SEMESTER - IV

PAPER V – PHARMACOGNOSY AND PHYTOCHEMISTRY I

Q.P. Code : 562046

Time: Three hours

Maximum: 75 Marks

I. Elaborate on: Answer any TWO questions.

(2 x 10 = 20)

1. What are organized and unorganized drugs? Give suitable examples. Add a note on various sources of drugs with suitable examples.
2. Describe in detail about the various methods of collection and drying of crude drugs.
3. Discuss about the steps involved in establishment of a tissue culture in detail.

II. Write notes on: Answer any SEVEN questions.

(7 x 5 = 35)

1. Give a note on serotaxonomy.
2. Discuss about the Lycopodium spore method and its significance.
3. Polyploidy.
4. Write a note on protoplast culture.
5. Describe about the maintenance of suspension culture.
6. Give the tests for identification of tannins.
7. Volatile oils.
8. Acacia.
9. Discuss about the antimicrobial agents from marine source.

III. Short answers on: Answer ALL questions.

(10 x 2 = 20)

1. Extractive values.
2. Enumerate about the various methods used to control pests.
3. Germplasm conservation technique.
4. Define Explant.
5. What are flavanoids? Give examples.
6. Keller Killiani test.
7. Write the basic principles of Homeopathy.
8. Give the uses of bromelain.
9. What are plant hallucinogens? Give examples.
10. Give the Biological source, family and uses of Chaulmoogra oil.

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

[BPHARM 1022]

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

Sub. Code: 2046

B.PHARMACY DEGREE COURSE (SEMESTER EXAMINATIONS)

PCI Regulation 2017 – SEMESTER IV

PAPER V – PHARMACOGNOSY AND PHYTOCHEMISTRY I

Q.P. Code : 562046

Time: Three hours

Maximum: 75 Marks

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

1. Explain the term adulteration and enumerate various types of adulteration with example.
2. Write the methods of cultivation, its advantages and disadvantages.
3. What are Alkaloids? Classify them with suitable examples. Give any two tests for identification of alkaloids.

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

1. How will you evaluate crude drugs by morphological methods?
2. Discuss about mutation with example.
3. Enumerate various type of trichomes with its functions.
4. Write a note processing of crude drugs.
5. Write a note on Nutritional requirements in plant tissue culture technique.
6. Explain the term flavonoids and classify flavanoids with examples.
7. Write a note on Streptokinase and urokinase enzymes.
8. Write a note on natural allergens.
9. Write a note on Ayurvedic system of medicine.

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

1. What is gums give any one example.
2. Define stomatal number.
3. Explain the term organized drugs and give one example.
4. Define totipotency.
5. Give the biological source, family and uses of Tragacanth.
6. How will you identify cardiac glycosides by chemical test?
7. What is Teratogens?
8. Give the source and uses of Jute.
9. What is serratiopeptidase?
10. Write the Chemical constituents of Wool Fat.

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

[B.PHARM 0323]

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

Sub. Code: 2046

**B.PHARMACY DEGREE COURSE (SEMESTER EXAMINATIONS)
PCI Regulation 2017 – SEMESTER IV
PAPER V – PHARMACOGNOSY AND PHYTOCHEMISTRY I**

Q.P. Code: 562046

Time: Three hours

Maximum: 75 Marks

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

1. Write briefly on collections and Preparation of honey for the market. How will you confirm the genuine honey by chemical test?
2. Write in detail about the plant growth hormone and its application.
3. Explain the term Evaluation and write in detail about microscopical evaluation of crude drugs.

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

1. Write a note on storage of crude drugs
2. Write a note on chemotaxonomy.
3. Explain the term pest. Enumerate the pest control methods used in cultivation of plants.
4. Write a note on types of plant tissue cultures with examples.
5. Explain the term tannins and classify tannins with examples.
6. Write a note on Applications of plant tissue culture technique.
7. Write a note on Streptokinase and urokinase.
8. Write a note on Edible vaccines.
9. Write a note on homeopathy system of medicine.

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

1. What is Extractive value?
2. Explain the term unorganized drug and give one example.
3. What do you mean by inoculum?
4. Give the biological source, family and uses of Wool Fat.
5. How will you identify anthraquinone glycosides by chemical test?
6. What is natural Allergen?
7. Give the source and uses of Hemp.
8. Write the confirmatory Chemical test for agar.
9. Define vein islet number.
10. Write the Chemical Constituents of Bees Wax.

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

[B.PHARM 0823]

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

Sub. Code: 2046

**B.PHARMACY DEGREE COURSE (SEMESTER EXAMINATIONS)
PCI Regulation 2017 – SEMESTER IV
PAPER V – PHARMACOGNOSY AND PHYTOCHEMISTRY I**

Q.P. Code: 562046

Time: Three hours

Maximum: 75 Marks

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

1. Define Plant Tissue Culture. Write a note on Cell Suspension Culture with a neat labeled diagram.
2. Enumerate in detail about the Adulteration of drugs of Natural Origin with suitable examples.
3. Define Carbohydrates. Write in detail about the pharmacognosy of any one carbohydrate containing crude drugs.

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

1. Novel medicinal agents obtained from marine origin.
2. Papain.
3. Homeopathy system of medicine.
4. Chemotaxonomy and serotaxonomy.
5. Castor oil.
6. Applications of secondary plant metabolites.
7. Define alkaloids and mention the chemical classification of alkaloids.
8. Factors influencing cultivation of medicinal plants.
9. Vegetable fibers.

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

1. Biotransformation.
2. Types of stomata.
3. Ash value.
4. Keller kiliani test.
5. CUOXAM test.
6. Chinese system of medicine.
7. Name the Leguminaceous drugs.
8. Hemp.
9. Define secondary metabolites and examples.
10. Structure of glucose.

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

[B.PHARM 1223]

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

Sub. Code: 2046

**B.PHARMACY DEGREE COURSE (SEMESTER EXAMINATIONS)
PCI Regulation 2017 – SEMESTER IV
PAPER V – PHARMACOGNOSY AND PHYTOCHEMISTRY I**

Q.P. Code: 562046

Time: Three hours

Maximum: 75 Marks

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

1. Write in detail about the pharmacognosy of any one lipid containing crude drugs.
2. Define plant tissue culture. Write in detail about any two methods with neat labeled diagrams and its applications.
3. Explain in detail about the roles of Pharmacognosy in Traditional Systems of Medicines.

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

1. Biological methods of drug evaluation.
2. Merits and demerits of cultivation.
3. Pepsin.
4. Conservation of Medicinal plants.
5. Taxonomical classification of crude drugs.
6. Starch.
7. Define tannins and mention the classification of tannins.
8. Processing and storage of crude drugs.
9. Method of manufacturing of absorbent cotton for market.

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

1. Acid value.
2. Types of trichomes.
3. Loss on drying.
4. Thalleoquin test.
5. Define Stomata with examples of drugs containing stomata.
6. Name the Apidae family drugs.
7. Mutation.
8. Tragacanth.
9. Define the term proteins with examples of protein containing crude drugs.
10. Palisade ratio.

B.PHARMACY DEGREE COURSE (SEMESTER EXAMINATIONS)
PCI Regulation 2017 – SEMESTER IV
PAPER V – PHARMACOGNOSY AND PHYTOCHEMISTRY I

Q.P. Code: 562046

Time: Three hours

Maximum: 75 Marks

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

1. How will you classify the crude drugs and write in detail about chemical classification of crude drugs.
2. Write briefly about types of tissue culture and nutrient requirements for plant tissue culture.
3. Describe the method of preparation of medicinal castor oil for the market and chemical constituents responsible for therapeutic action.

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

1. Explain the collections of drugs with example.
2. Write a note on polyploidy with example.
3. Mention various types of stomata with diagram.
4. Write a note on serotaxonomy.
5. Write a note on edible vaccine.
6. Explain the term resins and classify resins with examples.
7. Write a note on siddha system of medicine.
8. Enumerate the proteolytic enzymes and its uses with examples.
9. Write briefly on method of collection of gelatin from animal source.

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

1. What is Ash value?
2. Explain the term Foreign Organic Matter.
3. Define callus.
4. Give the biological source, family and uses of chaulmoogra oil.
5. General test for flavonoids.
6. What is Hallucinogens?
7. Give the source of agar and its uses.
8. What is bromelain and mention its therapeutic use.
9. Define stomatal index.
10. Chemical constituents of Tragacanth.

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

[B.PHARM 1024]

**OCTOBER 2024
(SEPTEMBER 2024 EXAM SESSION)**

Sub. Code: 2037

**B. PHARMACY DEGREE COURSE (SEMESTER EXAMINATIONS)
PCI Regulation 2017 – SEMESTER IV
PAPER V – PHARMACOGNOSY AND PHYTOCHEMISTRY I**

Q.P. Code: 562046

Time: Three hours

Maximum: 75 Marks

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

1. Describe the basic principles involved in Ayurveda and homeopathic System of Medicine.
2. a) Differentiate between organized and unorganized crude drugs with suitable examples.
b) Note on the history and scope of Pharmacognosy.
3. Describe in detail about the nutritional requirements of Plant tissue culture.

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

1. Pharmacological classification of crude drugs.
2. Differentiate absorbent and non-absorbent cotton.
3. Write about mutation and its types.
4. Source, preparation, chemistry and commercial uses of Castor oil.
5. What are alkaloids? How are they classified? Give example for each group.
6. Novel medicinal agents from marine source.
7. Write a brief note on Polyploidy.
8. Write a note on Streptokinase and urokinase enzymes.
9. How will you evaluate crude drugs by organoleptic methods?

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

1. Define Pharmacognosy.
2. Enumerate about the various methods used to control pests.
3. Stomatal number and stomatal index.
4. Define Explant.
5. Give the tests for identification of tannins.
6. What are primary and secondary metabolites give examples?
7. Write the basic principles of Homoeopathy.
8. Define totipotency.
9. Give two examples for Volatile oil containing drugs.
10. Give the Biological source, family and uses of agar.

B. PHARMACY DEGREE COURSE (SEMESTER EXAMINATIONS)
PCI Regulation 2017 – SEMESTER IV
PAPER V – PHARMACOGNOSY AND PHYTOCHEMISTRY I

Q.P. Code: 562046

Time: Three hours

Maximum: 75 Marks

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

1. What are Resins? Discuss about their properties and explain about any one in detail.
2. Describe in detail about the various methods of collection and drying of crude drugs.
3. Define and classify fibres with suitable examples. Discuss in detail about cotton.

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

1. How will you evaluate crude drugs by biological methods?
2. Discuss about the antimicrobial agents from marine source.
3. Write a note processing of crude drugs.
4. Explain morphological classification of crude drugs with suitable examples.
5. Explain the term adulteration and enumerate various types of adulteration with example.
6. Conservation of medicinal plants.
7. Discuss about the role of auxins and gibberellins in cultivation of a medicinal plant.
8. Give two examples of animal drugs with source, family, chemical constituents and uses.
9. Define Vein islet number and Veinlet termination number.

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

1. Define organized and unorganized drugs with examples.
2. Define Polyploidy.
3. Write about the role of proteolytic enzymes.
4. Write a note on preparation of agar.
5. What are plant hallucinogens? Give examples.
6. Write the four types of stomata with examples for each.
7. Chemotaxonomy.
8. Define mutation with example.
9. Sources and uses of jute.
10. Extractive value.
