

[LB 4268]

AUGUST 2012

Sub. Code: 4268

FOURTH YEAR B.PHARM. EXAM
Paper II – ADVANCED PHARMACOGNOSY
Q.P. Code: 564268

Time: 180 Minutes

Maximum : 100 marks

(180 Min) Answer ALL questions in the same order.

I. Elaborate on:

Pages Time Marks
(Max.)(Max.)(Max.)

- | | | | |
|----------------------------------------------------------------------------------------------------|----|----|----|
| 1. a. Dwell on the utilization of radioactive isotopes in the investigation of biogenetic studies. | 19 | 33 | 20 |
| b. Stability test for herbal extracts. | | | |
| 2. Elaborate on the preparation and standardization of | 19 | 33 | 20 |
| a. Bhasmas | | | |
| b. Lehyas | | | |

II. Write notes on:

- | | | | |
|------------------------------------------------------------------------------------------------------|---|---|---|
| 1. Biosynthesis of morphine. | 3 | 8 | 5 |
| 2. Brief note on basic metabolic pathways leading to the formulation of plant secondary metabolites. | 3 | 8 | 5 |
| 3. Types of allergenic extracts. | 3 | 8 | 5 |
| 4. Production and applications of quinoline alkaloids. | 3 | 8 | 5 |
| 5. Note on single cell culture. | 3 | 8 | 5 |
| 6. Principle of sidha system of medicine. | 3 | 8 | 5 |
| 7. Preparation of aristas. | 3 | 8 | 5 |
| 8. Export potential of medicinal and aromatic plants of India. | 3 | 8 | 5 |

III. Short Answers:

- | | | | |
|-------------------------------------------------------------------------|---|---|---|
| 1. Define asavas. | 1 | 5 | 2 |
| 2. What are allergens? Give examples. | 1 | 5 | 2 |
| 3. What are enzyme reactors? | 1 | 5 | 2 |
| 4. Chemical structure and uses of menthol, citric acid. | 1 | 5 | 2 |
| 5. Applications of pectinase, papain. | 1 | 5 | 2 |
| 6. Different methods of feeding radio isotopes in tracer techniques. | 1 | 5 | 2 |
| 7. Define totipotency. | 1 | 5 | 2 |
| 8. Role of plant tissue culture in production of secondary metabolites. | 1 | 5 | 2 |
| 9. What are gutikas? | 1 | 5 | 2 |
| 10. Give examples of phytoconstituents subjected to spectral analysis. | 1 | 5 | 2 |

(LC 4268)

FEBRUARY 2013
FOURTH YEAR B.PHARM. EXAM
Paper II – ADVANCED PHARMACOGNOSY
Q.P. Code: 564268

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Time: Three Hours
(180 Min)

Maximum: 100 marks

I. ELABORATE ON:

(2x20 = 40)

1. (a) Explain the methods for the isolation of secondary metabolites from crude plant material
(b) Define culture. Explain the types of plant tissue culture and application of tissue culture in pharmacy. [10 + 10]
2. (a) Explain the industrial production and utilization of tropane alkaloids
(b) Describe the WHO guidelines for assessment of herbal medicines [10 + 10]

II SHORT NOTES

(8x 5 = 40)

1. Purification of enzymes
2. Export potential of medicinal plants
3. Role of infra red spectroscopy in evaluation of plant constituents
4. Biogenesis of morphine
5. Estimation of heavy metals in herbal preparations
6. Write a note of allernergic extracts
7. Plants having anti HIV activity
8. Write a note on Siddha and Homeopathy

III SHORT ANSWERS

(10 x 2 = 20)

1. Define totipotency
2. Uses of pepsin
3. Difference between churnas and lehyas
4. Define cloning
5. Enumerate plants with anti viral potency
6. Difference between total extract and tincture
7. Principle in paper chromatography
8. Enumerate the nutritional requirements of cultures.
9. Name the alkaloids of vinca
10. Enumerate radioactive isotopes used in investigation of biogenetic studies.

(LD 4268)

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**FOURTH YEAR B.PHARM. EXAM
PAPER II – ADVANCED PHARMACOGNOSY**

Q.P. Code: 564268

Time: Three Hours

Maximum: 100 marks

I. Elaborate on:

(2X20=40)

1. Explain with examples how the secondary metabolites of pharmaceutical importance are produced through tissue culture technique.
2. Discuss the industrial production and utilization of
 - a. Senna glycosides
 - b. Vinka alkaloids

II. Write notes on:

(8X5=40)

1. Role of radio active isotopes in biogenetic studies
2. Preparation and standardization of churnas
3. Export potential of medicinal plants in India
4. Application of HPTLC
5. Composition of typical tissue culture medium for production of callus
6. Use of electrophoresis in phytochemical analysis
7. Production and utilization of citric acid
8. Plant growth regulators used in tissue culture

III. Short Answers on:

(10X2=20)

1. Mention the spray reagents used to detect alkaloids
2. Use of the enzyme papain
3. Ash values
4. Define Asawas
5. Pharmaceutical application of Diosgenin
6. List out any basic metabolic pathways
7. Organogenesis
8. Autoradiography
9. Holistic medicines
10. Define Gutikas

(LE 4268)

FEBRUARY 2014

Sub. Code: 4268

**FOURTH YEAR B.PHARM. EXAM
PAPER II – ADVANCED PHARMACOGNOSY**

Q.P. Code: 564268

Time: Three Hours

Maximum: 100 marks

I. Elaborate on:

(2X20=40)

1. Discuss in detail the various methods involved in extraction, purification and identification of phytoconstituents of crude drugs.
2. Give an account of the following:
 - a. Plant growth regulators and their applications in production of secondary metabolites.
 - b. Industrial production of menthol.

II. Write notes on:

(8X5=40)

1. Biosynthesis of Penicillin.
2. Define natural allergens. How they are classified?
3. Industrial production and utilization of Senna glycosides.
4. Give the preparation and uses of Papain.
5. Anti-viral drugs.
6. Cell suspension culture and its application.
7. Composition of a typical tissue culture medium for the production of callus.
8. Preparation and uses of Tinctures.

III. Short Answers on:

(10X2=20)

1. Holistic medicines.
2. Contact allergens.
3. Total Ash value.
4. Define Arista.
5. Give examples of plants having anti-HIV activity.
6. Autoradiography.
7. Write the source and uses of quinoline alkaloids.
8. Principle involved in HPTLC.
9. Define totipotency.
10. Write the structure and uses of morphine.

[LF 4268]

AUGUST 2014

Sub. Code: 4268

FOURTH YEAR B.PHARM. DEGREE EXAMINATION

Paper II - ADVANCED PHARMACOGNOSY

Q. P. Code: 564268

Time: Three Hours

Maximum: 100 Marks

Answer All Questions

I. Essay Questions:

(2 x 20 = 40)

1. a) Discuss about plant growth regulators and their application in production of secondary metabolites.
b) Discuss in brief the utilization of radioactive isotopes in biogenetic studies.
2. Write a brief note on chromatographic techniques employed in phytochemical analysis.

II. Short Notes:

(8 x 5 = 40)

1. Give the preparation and uses of papain.
2. Preparation and standardisation of Aristas.
3. Production and utilization of quinine.
4. Application of plant tissue culture.
5. Basic principles involved in Siddha system of medicine.
6. Natural allergens.
7. Stability tests for herbal extracts.
8. Importance of pharmacognosy in herbal drug industry.

III. Short Answers:

(10 x 2 = 20)

1. Structure, biological source and use of quinine.
2. Biological source and use of solasodine.
3. What are Bhasmas?
4. Give examples for steroidal glycosides
5. Electrophoresis
6. Teratogenic plants
7. Use of Gossypol and Vidarabine.
8. Pharmaceutical application of Diosgenin.
9. Totipotency
10. Name any two basic metabolic pathways in the formation of plant secondary metabolites.
