

QP Code : .....

Reg No:.....

**FINAL YEAR B.PHARM DEGREE EXAMINATIONS**  
(Model Question Paper – 2010 Scheme)

**Pharmaceutical Chemistry V**  
(Medicinal Chemistry)

**Time : 3 hours**

**Max Marks : 100**

- **Answer all questions**
- **Write equations wherever necessary**
- **Draw diagram wherever necessary**

**Essay:**

**(3x10=30)**

1. What are diuretics. Mention the synthesis, mechanism of action and clinical uses of furosemide.
2. Discuss in detail the chemistry of betalactum antibiotics. Outline the synthesis and specific uses of chloramphenicol.
3. Classify antineoplastic agents giving suitable examples for each category. Outline the synthesis and mechanism of action of methotrexate.

**Short Notes:**

**(14x5=70)**

4. Antiviral agents.
5. QSAR.
6. How do optical and geometric isomerisms influence the biological actions of drugs.
7. Enumerate the differences between local and general anesthetics. Mention the chemical synthesis of an amide type of local anesthetic.
8. Structure activity relationship of cholinergic drugs.
9. Outline the synthesis of diazepam and mention its uses.
10. Synthesis, mechanism of action and uses of methyl dopa.
11. Classify antihistamines based on chemical structure with examples. Mention the structure of promethazine.
12. Mechanism of action and synthesis of mebendazole.
13. Beta adrenergic blockers.
14. Chemical structure and uses of the following – Pentazocin and Gri seofulvin.
15. Local antiinfective agents.
16. Structure and therapeutic applications of any two antipsychotics of phenothiazine group.
17. What are prodrugs. Mention the application of prodrug design with suitable examples.

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## FINAL YEAR B.PHARM DEGREE EXAMINATIONS

(Model Question Paper -2010 Scheme)

### Pharmaceutical Analysis - II

Time : 3 hours

Max Marks : 100

- Answer all questions
- Write equations wherever necessary
- Draw diagram wherever necessary

**Essay:**

**(3x10=30)**

1. Explain the origin of UV spectra. Define Beer- Lamberts law and arrive at an expression relating absorbance, path length and concentration.
2. Explain the theory of thin layer chromatography. Add a note on the methods of detection of spots on the plate.
3. Using a block diagram illustrate the working of an Infra red spectrophotometer. Add a note on the usefulness of IR spectra in the structural elucidation of organic compounds.

**Short Notes:**

**(14x5=70)**

4. Detectors used in gas chromatography.
5. Applications of potentiometric titrations.
6. Jabalonski diagraph.
7. Ionization techniques in mass spectrometry.
8. ICH guidelines
9. Principle of radio-immuno assay.
10. Precessional frequency.
11. Dropping mercury electrode.
12. Use of HPTLC in plant drug research.
13. Construction of a standard hydrogen electrode.
14. Use of X-Ray diffraction in pharmacy.
15. Construction and working of a hollow cathode lamp.
16. Importance of validation of analytical equipments.
17. Use of differential scanning calorimetry in pharmacy.

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## FINAL YEAR B.PHARM DEGREE EXAMINATIONS

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### Pharmacognosy III

Time : 3 hours

Max Marks : 100

- Answer all questions
- Write equations wherever necessary
- Draw diagram wherever necessary

#### Essay:

(3x10=30)

1. Classify terpenes with examples. Explain its biogenesis & sources, chemistry and pharmacology of sesquiterpenes.
2. What are the threats to biodiversity and explain the measures to conserve biodiversity.
3. Explain the WHO guidelines for evaluation of crude drugs in detail

#### Short Notes:

(14x5=70)

4. Biogenesis of cardiac glycosides.
5. Gene transfer methods.
6. Uses of lignans
7. Chemistry of flavonoids.
8. Tissue culture media.
9. Trade of ginseng.
10. Applications of UV spectroscopy in herbal drug analysis.
11. Optical isomerism of phytochemicals.
12. Two research institutions in India working on medicinal plants.
13. Classify herbal cosmetics with examples.
14. What are prebiotics and probiotics.
15. Chemistry and pharmacology of opium alkaloids.
16. Evaluation methods for herbal tablets
17. Requirements of a tissue culture laboratory

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**FINAL YEAR B.PHARM DEGREE EXAMINATIONS**  
(Model Question Paper -2010 Scheme)  
**Pharmaceutics VI**

( Formulative & Industrial Pharmacy)

**Time : 3 hours**

**Max Marks : 100**

- **Answer all questions**
- **Write equations wherever necessary**
- **Draw diagram wherever necessary**

**Essay:**

**(3x10=30)**

1. List the objectives of tablet coating. Explain its different types and list its advantages.  
Explain in detail the steps involved in sugar coating.
2. What are pharmaceutical aerosols. Explain the formulation and packaging of aerosols with special reference to valve systems, types of propellants and filling methods.
3. What is microencapsulation. State its advantages over conventional dosage forms. Explain any two techniques employed in the preparation of microcapsules.

**Short Notes:**

**(14x5=70)**

4. Production of hard gelatin capsule shell.
5. Tablet excipients.
6. Containers used in parenterals.
7. Quality control tests of capsules.
8. Any three defects in tablet manufacture and its correction.
9. Total parenteral nutrition.
10. Eye drops.
11. Shampoos.
12. Dentifrices.
13. Liposomes.
14. Advantages of transdermal drug delivery.
15. Process validation.
16. Preparation of catgut.
17. Plasma substitutes.

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## FINAL YEAR B.PHARM DEGREE EXAMINATIONS

(Model Question Paper -2010 Scheme)

### Pharmacology - II

Time : 3 hours

Max Marks : 100

- Answer all questions
- Write equations wherever necessary
- Draw diagram wherever necessary

#### Essay:

(3x10=30)

1. Define bioassay. Mention when bioassay is preferred over physical and chemical methods of assay. Elaborate on various methods of bioassay.
2. Classify antineoplastic agents with suitable examples of each class. Mention the common adverse effects of these agents. Add a note on alkylating agents.
3. Define antibiotics. Classify them based on its mechanism of action. Add a note on the rationale behind combination of antibiotics.

#### Short Notes:

(14x5=70)

4. List the advantages of atypical antipsychotics from typical antipsychotics.
5. Outline the principle and protocol for bioassay of digitalis.
6. Management of methanol poisoning.
7. Newer anti-epileptic drugs.
8. Principles and applications of RIA.
9. Various neurotransmitters present in the CNS and its role in the pathogenesis of diseases.
10. Comment on the therapeutic potential of MAO inhibitors.
11. Mechanism of action and therapeutic use of loop diuretics.
12. Pharmacological actions of oxytocin. Compare ergometrine and oxytocin as ecbolics.
13. Various phases of clinical trials in drug development.
14. Mention the modalities in the management of drug poisoning using paracetamol as an example.
15. Compare SSRIs and TCAs as anti depressants.
16. Role of fibrinolytic agents in the management of acute stroke.
17. What is bioinformatics. Mention its role in drug discovery.

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**FINAL YEAR B.PHARM DEGREE EXAMINATIONS**

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**Pharmacy Practice  
(Hospital Pharmacy & Clinical Pharmacy)**

**Time : 3 hours**

**Max Marks : 100**

- **Answer all questions**
- **Write equations wherever necessary**
- **Draw diagram wherever necessary**

**Essay:**

**(3x10=30)**

1. What is inventory control. Explain the significance of inventory control in managing drugs in the hospitals. Discuss the various methods of inventory control.
2. What do you mean by congestive cardiac failure. Mention the clinical manifestations and treatment of CCF.
3. What are the infrastructure requirements of a community pharmacy. Add note on the professional responsibility of community pharmacist.

**Short Notes:**

**(14x5=70)**

4. In-patient drug distribution system.
5. Pharmacy and therapeutic committee.
6. Hospital formulary.
7. Procurement of drugs in a tertiary care hospital.
8. CSSR.
9. Duties and responsibilities of clinical pharmacist
10. Liver function tests.
11. TDM.
12. ADR monitoring methods.
13. Pharmacological and non pharmacological management of diabetes.
14. TB management and DOTS programme.
15. Pharmacoeconomics
16. Treatment algorithm for rheumatoid arthritis
17. Real function tests.

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