

QP Code :

Reg No:.....

THIRD YEAR B.PHARM DEGREE EXAMINATION

(Model Question Paper – 2010 Scheme)

Pharmaceutics IV

(Pharmaceutical Microbiology & Biotechnology)

Time : 3 hours

Max Marks : 100

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

Essay:

(3x10=30)

1. Explain the various antigen-antibody reactions. Discuss briefly on immune fluorescence.
2. What are the different parameters to be considered in a fermentation process. Explain the production, harvest and recovery of penicillin.
3. Classify the thermal methods of sterilization and explain any two of them.

Short Notes:

(14x5=70)

4. Anaerobic culture methods.
5. Structure of bacterial cell.
6. Isolation of pure culture.
7. Cultivation of viruses.
8. Methods of gene transfer.
9. Interferons.
10. Standardisation of immunological products.
11. Techniques of enzyme immobilisation.
12. Microbial assay of antibiotics by diffusion.
13. Sterility testing by Membrane filtration.
14. Sterilisation by radiation.
15. Rideal Walker coefficient.
16. Industrially important microorganisms.
17. Steps in gene cloning.

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THIRD YEAR B.PHARM DEGREE EXAMINATION

(Model Question Paper -2010 Scheme)

Pharmaceutical Chemistry - IV

(Chemistry of Natural Products)

Time : 3 hours

Max Marks : 100

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

Essay:

(3x10=30)

1. Discuss the structure elucidation and pharmacological activity of morphine.
2. What are steroids. Explain the nomenclature and stereochemistry of steroids.
3. How was it found that glucose has a ring structure and how was the ring size determined.

Short Notes:

(14x5=70)

4. Discuss the chemistry and uses of camphor.
5. What are anabolic steroids. Mention the structure and uses of testosterone.
6. Give the chemical structures and biological importance of therapeutically useful prostaglandins
7. Cellulose derivatives used in pharmacy.
8. Isoelectric point and denaturation of proteins.
9. Discuss the structural features and uses of insulin.
10. Chemical structures of various aglycones of cardiac glycosides.
11. Structural elucidation of caffeine.
12. Outline the synthesis of progesterone from cholesterol.
13. Explain Hofmann exhaustive methylation method. Illustrate with examples.
14. Chemical structures and biological importance of Vitamin B2 and Vitamin A.
15. Show the inter relationship between oestrone, oestradiol and oestriol structures.
16. Explain the significance of analytical constants of fats and oils.
17. Explain the primary structure of proteins.

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THIRD YEAR B.PHARM DEGREE EXAMINATION

(Model Question Paper -2010 Scheme)

Pharmacology I

Time : 3 hours

Max Marks : 100

- Answer all questions
- Write equations wherever necessary

Essay:

(3x10=30)

1. Define tolerance. Classify with examples. What are the mechanisms of drug tolerance. How addiction is treated.
2. Classify antihypertensive drugs with examples. Explain the mechanism of action of ACE inhibitors. Mention the adverse effects and contraindications of ACEI.
3. Classify antidiabetic drugs. Explain the pharmacotherapy of type I diabetes mellitus. Enumerate different insulin preparations.

Short Notes:

(14x5=70)

4. Name four anticholine esterase drugs. Mention their general therapeutic uses.
5. What is drug allergy. Name different types of allergic reactions with examples.
6. Name some prostaglandin analogues. Mention its therapeutic uses.
7. What is biotransformation. What is the clinical significance of microsomal enzyme induction.
8. What is rational use of medications. Define P drug concept and P treatment.
9. Name different drug interactions. Write a brief note on pharmacogenetic drug interactions
10. What are the steps to be taken to minimize drug exposure to babies during lactation.
11. Explain transdermal drug administration.
12. Name different receptor theories. What is meant by receptor up regulation and down regulation.
13. Explain the following with examples: Enterohepatic cycling , Therapeutic index
14. What are the general methods of management of poisoning.
15. Classify antihistaminic drugs with examples.
16. What are the therapeutic uses and adverse effects of glucocorticoids.
17. Discuss briefly about : Astemazole , Granisetron

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THIRD YEAR B.PHARM DEGREE EXAMINATION
(Model Question Paper -2010 Scheme)
Pharmaceutics V

(Biopharmaceutics & Pharmacokinetics)

Time : 3 hours

Max Marks : 100

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

Essay:

(3x10=30)

1. Describe the physico-chemical properties of drugs which influence their gastrointestinal absorption.
2. What are the reasons for non-linearity in pharmacokinetics of drugs. Explain the methods for determination of Michaelis constant in non-linear kinetics.
3. Derive expressions for the concentration in plasma (C_p), C_{max} , T_{max} and elimination rate constant (K_e) of a drug following first order absorption and one compartment kinetics when given by oral route.

Short Notes:

(14x5=70)

4. Glucuronidation in biotransformation of drugs.
5. Explain the determination of first order elimination rate constant of a constant rate intravenous infusion assuming one compartment model.
6. Plasma protein binding of drugs.
7. How will you determine first order absorption rate constant (K_a) by method of residuals. Assume one compartment open model.
8. How dose adjustment is done in patients with renal failure.
9. Explain the various pharmacokinetic parameters useful for assessment of bioavailability.
10. Describe briefly enterohepatic cycling of drugs.
11. Physiological barriers to distribution of drugs.
12. Explain biopharmaceutics classification system for drugs with examples.
13. Describe any official dissolution test methodology and acceptance criteria for immediate release solid dosage forms.
14. Explain the determination of elimination half life of a one compartment IV bolus model from urinary excretion data by rate of excretion method.
15. Explain the various mechanisms of renal clearance.
16. Vitro - in vivo correlation.
17. Describe passive diffusion transport mechanism of drug absorption.

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THIRD YEAR B.PHARM DEGREE EXAMINATION

(Model Question Paper -2010 Scheme)

Pharmaceutical Jurisprudence

Time : 3 hours

Max Marks : 100

- Answer all questions
- Write equations wherever necessary

Essay:

(3x10=30)

1. Explain the constitution of the pharmacy council of India. Discuss its functions in detail.
2. State the salient features of the drugs and magic remedies act 1955 and explain its significance in the prohibition of advertisements of drugs.
3. Define "Medicinal preparation" and "toilet preparation". Explain the manufacture of Alcoholic preparations in bond and outside bond.

Short Notes:

(14x5=70)

4. Constitution, powers and functions of A.I.C.T.E.
5. Conditions of import license of drugs.
6. Loan license and repacking license.
7. Retail sale of drugs.
8. Drugs technical advisory board.
9. Powers and duties of drugs inspectors.
10. Define ●"factory" ● "pharmacy" ● "cannabis" ● "food".
11. Opium poppy cultivation.
12. Retail pricing of formulations.
13. Salient features of the poisons act 1919.
14. Institutional animal ethics committee.
15. Salient features of the patents act 2001.
16. Explain "Adulterated drugs" and "Spurious drugs".
17. Pharmacist in relation to his trade and profession.

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THIRD YEAR B.PHARM DEGREE EXAMINATION

(Model Question Paper -2010 Scheme)

Pharmacognosy - II

Time : 3 hours

Max Marks : 100

- Answer all questions
- Write equations wherever necessary

Essay:

(3x10=30)

1. Briefly describe the different chromatographic methods and its application in the evaluation of crude drugs.
2. What is marine pharmacognosy. Which are the novel medicinal agents from marine sources.
3. Discuss about alternative systems of medicine prevailing in India.

Short Notes:

(14x5=70)

4. Chemotaxonomy.
5. Chemical tests and adulterants of *Senna*.
6. *Shikimic* acid pathway.
7. Differentiate between *Asava* and *arishta*.
8. Morphology and microscopy of *Liquorice*.
9. Aromatherapy.
10. Chemical tests for *Datura* and *Neem*.
11. Diastase.
12. Transverse section of *Thevetia*.
13. Supercritical fluid extraction method.
14. Chemical constituents of *Rauwolfia*.
15. Any two protein containing drugs.
16. Plant allergens.
17. Preparation of *Lehyas*.

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THIRD YEAR B.PHARM DEGREE EXAMINATION
(Model Question Paper -2010 Scheme)
Pharmaceutical Management

Time : 3 hours

Max Marks : 100

- Answer all questions
- Write equations wherever necessary

Essay:

(3x10=30)

1. Explain the different channels of distribution with special reference to retail sale of drugs.
2. State and explain the different functions of pharmaceutical marketing.
3. Explain in detail on planning as a part of management.

Short Notes:

(14x5=70)

4. Leadership.
5. Communication.
6. Training and evaluation.
7. New drug applications.
8. Intellectual property rights.
9. Levels of management.
10. Export of drugs.
11. Market research.
12. ABC analysis.
13. Qualities of a salesman.
14. Bioequivalence study protocols.
15. Functions of Wholesaler.
16. Books of original entry.
17. Enter the following transactions of Mr. Mahesh Sharma in a two columnar cash book:

2013 July		Rs.
1	Started business with cash	50,000/-
2	Purchased goods for cash	30,000/-
7	Received cash from Reghu	15,000/-
10	Paid into Bank	7,000/-
15	Cash sales	2,500/-
28	Paid to Vijay Discount allowed	3,000/- 200/-
29	Received from Thomas Discount allowed	3,900/- 100/-
30	Paid rent for the month Paid Salaries	1,500/- 2,000/-
