

ADICHUNCHANAGIRI UNIVERSITY

Pharm D III Year Examination – January 2022

TIME: 3 Hours

MAX.MARKS: 70

SUB: Pharmaceutical Analysis

QP CODE:44302

- Instructions:**
1. Your answer should be specific to the questions asked.
 2. Write the same question numbers as they appear in this question paper.
 3. Write Legibly.
 4. Draw neat labelled diagrams wherever necessary.

Long Essay: Answer any Two

2X10=20

1. With neat labelled diagram, explain the process of Gas chromatography. Add a note on Detectors in Gas Chromatography.
2. Describe the basic principles of Polarography. Give the effect of Oxygen on polarographic wave.
3. With neat labelled diagram illustrate the working of double beam Fluorimeter.

Short Essay: Answer any Six

5X6=30

4. Write the overview of Total Quality Management with its importance in pharmaceutical industry.
5. Explain the terms: Statistical process control and Acceptance sampling.
6. Explain theory, instrumentation and application of Infra-Red spectroscopy.
7. Explain with examples: Bulk property detectors and Solute property detectors in High Performance Liquid Chromatography.
8. Define ion exchange chromatography. Write a note on ion exchange resins with examples.
9. With suitable examples discuss the effect of solvents on UV-absorption spectrum.
10. Give the instrumentation and applications of DSC and DTA.
11. Define Adsorption chromatography. Give the factors affecting the column efficiency.

Short Answers: Answer All the questions

2X10=20

12. Validation of Analytical instruments.
13. Normal phase and Reverse phase Chromatography.
14. Applications of Gel Electrophoresis.
15. Karl Fischer Titration.
16. Define the terms a) Chromophore b) Auxochrome.
17. Optical Rotatory Dispersion.
18. Shielding and de-shielding.
19. Singlet state and Triplet states.
20. Fragmentation Patterns.
21. Atomic Absorption Spectroscopy and Atomic Emission Spectroscopy.

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Pharm D III Year Examination – January 2022

TIME: 3 Hours

MAX.MARKS: 70

SUB: Pharmacology-II

QP CODE:44301

- Instructions:**
1. Your answer should be specific to the questions asked.
 2. Write the same question numbers as they appear in this question paper.
 3. Write Legibly.
 4. Draw neat labelled diagrams wherever necessary.

Long Essay: Answer any Two

2X10=20

1. Classify cephalosporins with examples. Highlight on changes in antimicrobial spectrum, adverse reactions and therapeutic uses of each generation of cephalosporins.
2. Outline the steps involved in the process of gene expression in prokaryote.
3. What is DOTS? Classify anti TB drugs with examples. Write the mechanism of action adverse effects of INH.

Short Essay: Answer any Six

5X6=30

4. Write mechanism of action, adverse effects and therapeutic uses of warfarin.
5. Outline life cycle of plasmodium vivax.
6. What are biosensors? Write their general mode of action and uses.
7. Explain the rationale behind the co-trimoxazole combination. Write its advantages and uses.
8. Describe signal transduction pathway of MAPK kinases.
9. Write sources, mechanism of action and therapeutic uses streptokinase and urokinase.
10. Describe the structure of mRNA with schematic diagram
11. Classify the anticancer agents with examples.

Short Answers: Answer All the questions

2X10=20

12. What is grey baby syndrome?
13. Mention OECD guidelines used for determination LD50.
14. What is prometaphase?
15. Write uses of Glucocorticoids as immunosuppressants.
16. Mention any four methods of DNA sequencing.
17. What are drugs used in treatment of round worm infestation?
18. What are OKAZAKI fragments?
19. Mention four uses of thiazide diuretics.
20. Mode of action of Tetracyclines.
21. Write four therapeutic uses of anticoagulants

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TIME: 3 Hours

MAX.MARKS: 70

SUB: Pharmacotherapeutics II

QP CODE:44303

- Instructions:**
1. Your answer should be specific to the questions asked.
 2. Write the same question numbers as they appear in this question paper.
 3. Write Legibly.
 4. Draw neat labelled diagrams wherever necessary.

Long Essay: Answer any Two

2X10=20

1. Explain pathophysiology and pharmacotherapy of rheumatoid arthritis.
2. Explain the pathophysiology, diagnosis and management of tuberculosis.
3. Explain the various considerations in design of chemotherapeutic regimen in management of cancer.

Short Essay: Answer any Six

5X6=30

4. Explain the management of protozoal infections.
5. Write a note on drug induced renal disorder.
6. Write a note on guidelines for the rational use of antibiotics and surgical prophylaxis.
7. Explain in detail the management of HIV.
8. Discuss the etiology and pathogenesis of endocarditis.
9. Discuss the management of complicated Urinary Tract Infections.
10. Discuss the etiopathogenesis and management of Psoriasis.
11. Give the symptoms, diagnosis and management of Gonorrhea.

Short Answers: Answer All the questions

2X10=20

12. Classify surgical wounds.
13. What is Cachexia?
14. What are the complications of peritoneal dialysis?
15. Explain the role of corticosteroids in septicemia.
16. List the antibiotics active against enteric fever.
17. What are the diagnostic tests for malaria?
18. Write the significance of renal function tests.
19. Enlist the diagnostic markers for breast cancer.
20. What are the risk factors and counseling points for gout.
21. Write a note on management of otitis media.

ADICHUNCHANAGIRI UNIVERSITY

Pharm D III Year Examination – January 2022

TIME: 3 Hours

MAX.MARKS: 70

SUB: Pharmaceutical Jurisprudence

QP CODE:44304

- Instructions:**
1. Your answer should be specific to the questions asked.
 2. Write the same question numbers as they appear in this question paper.
 3. Write Legibly.
 4. Draw neat labelled diagrams wherever necessary.

Long Essay: Answer any Two

2X10=20

1. What is Patent Cooperative Treaty. Explain Patent of addition and restoration of lapsed patents under Patent Act.
2. Explain Warehousing of alcoholic preparation as per Medicinal and Toilet preparations act. How alcoholic goods are transported from one warehouse to another.
3. Describe the constitution of State pharmacy council. Explain preparation of 'first register and 'subsequent register'

Short Essay: Answer any Six

5X6=30

4. Give significance of Drug Enquiry committee.
5. Discuss the code of ethics for pharmacists in relation to his medical profession.
6. Give the labelling requirements and write the specimen label for ophthalmic preparation.
7. Write the constitution of Joint State Pharmacy Council. Enumerate its functions
8. Explain Export of Alcoholic preparations under bond
9. Write the constitution and functions of Narcotic and Psychotropic consultative committee
10. Define 'advertisement'. Write the classes of advertisements exempted under D&MR Act.
11. Write objectives of 'Prevention of cruelty to animals act'. What are the parts of CPCSEA guidelines?

Short Answers: Answer All the questions

2X10=20

12. What are OTC products?
13. Name any four surgical accessories
14. What is ceiling price as per DPCO
15. What is the punishment specified for illegal cultivation of coca plant?
16. How to dispose recovered alcohol as per provisions of Medicinal and Toilet Preparations Act.
17. How to restore to the register as per Pharmacy act.
18. Give the functions of Drug Consultative Committee.
19. Define Schedule U & V.
20. How should be 'conduct of pharmacy' as per code of pharmaceutical ethics?
21. Give future trends in pharmaceutical legislation

ADICHUNCHANAGIRI UNIVERSITY

Pharm.D III Year Examination – January 2022

TIME: 3 Hours

MAX.MARKS: 70

SUB: Medicinal Chemistry

Q P Code: - 44305

- INSTRUCTIONS:**
1. Your answer should be specific to the questions asked.
 2. Write legibly.
 3. Write the same question numbers as they appear in this question paper.
 4. Draw neat labelled diagrams wherever necessary.

Long Essay: Answer any Two

2X10=20

1. Classify diuretics with examples giving one structure from each class. Discuss the SAR features of carbonic anhydrase inhibitors and outline the synthesis of acetazolamide.
2. Classify antimetabolites as anticancer agents. What are the strategies used in their design? Outline the synthesis of any one of them.
3. Classify antihyperlipidemic drugs with examples giving one structure from each class. Discuss the SAR of HMG-CoA-reductase Inhibitors

Short Essay: Answer any Six

6X5=30

4. Discuss the SAR of 1, 4 Dihydropyridines as antianginal agents and give the synthesis of nifedipine.
5. Write the SAR for Sulphonamides. Outline the synthesis of INH
6. Classify Antimalarial agents by giving one structure under each class. Write the salient structural features for DHFR inhibitors.
7. What are Antiseptics? How are they different from disinfectants? Classify them by giving examples. Write briefly on phenol coefficient and mention their significance.
8. What is combinatorial chemistry? Explain their principle and applications
9. Write the Chemistry of Amino glycoside Antibiotics
10. Classify oral hypoglycaemic agents giving one structure from each class. Outline the syntheses of tolbutamide
11. Classify anti tubercular agents by giving one structure under each class. Outline the synthesis of Para Amino Salicylic acid

Short Answers (Answer all the questions)

10X2=20

12. Write the important chemical features of Insulin
13. How Cholestyramine acts as antihyperlipidemic agent?
14. Why Augmentin is preferred to Amoxacillin?
15. Write the structure and uses of methylthiouracil
16. What are prodrugs? Give examples
17. Write the structure and uses of stilbestrol
18. What is QSAR? Enlist the descriptors used in QSAR
19. Why ribose sugar is replaced with arabinose sugar in the design of antiviral drugs?
20. Anti TB agents are basic in nature. Give reasons
21. What are Radio diagnostic agents? Classify them by giving example

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Pharm D III Year Examination – January 2022

TIME: 3 Hours

MAX.MARKS: 70

SUB: Pharmaceutical Formulations

QP CODE:44306

- Instructions:**
1. Your answer should be specific to the questions asked.
 2. Write the same question numbers as they appear in this question paper.
 3. Write Legibly.
 4. Draw neat labelled diagrams wherever necessary.

Long Essay: Answer any Two

2X10=20

1. Define and classify semi solid dosage form. Discuss in detail the different kinds of bases used in the preparation of ointments.
2. Explain formulation and manufacturing process large volume parenterals .
3. Explain in details formulation and preparation of emulsion by different methods.

Short Essay: Answer any Six

5X6=30

4. Describe the quality control test for coated tablets.
5. Discuss the manufacturing of hard gelatin capsule .
6. Define dosage form. Classify dosage form in details with suitable examples
7. Explain the factors affecting the absorption of drug across the skin.
8. Write a note on containers used for parenterals.
9. Describe the various identification test for emulsions.
10. Write a note on transdermal drug delivery system.
11. What are Control drug delivery system? Write their concepts advantages and disadvantages

Short Answers: Answer All the questions

2X10=20

12. Give the difference between flocculated and deflocculated suspension.
13. Define cachets.
14. Enlist natural suspending agent.
15. What are soft gelatin capsules.
16. Closures used in parenterals.
17. Lubricants and binders.
18. Write a note on Jellies.
19. Give two examples each for flavouring and sweetening agent.
20. What is the importance of displacement value in suppositories.
21. Implants.
