

QP Code: 621006

Reg. No.....

**Sixth Semester B. Pharm Degree Supplementary Examinations
December 2022
Medicinal Chemistry
(2017 Scheme)**

Time: 3 Hours

Max. Marks: 75

- Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space
- Answer all parts of a single question together • Leave sufficient space between answers
- Draw diagrams wherever necessary

Essays

(2x10=20)

1. Discuss the chemistry mechanism of action and adverse effects of Tetracyclines.
2. Describe the concept and applications of combinatorial chemistry.

Short Notes

(7x5=35)

3. Classify anti-tubercular drugs with examples.
4. Discuss the SAR of Quinolones.
5. Explain the etiology of malaria.
6. Outline the synthesis and mechanism of action of trimethoprim.
7. Discuss antiviral drugs with examples.
8. Outline the synthesis and uses of Dapsone and sulfacetamide.
9. Discuss the chemical degradation of Penicillin.

Answer Briefly

(10x2=20)

10. Outline the synthesis of chloramphenicol.
11. Discuss the mechanism of action of anthelmintics.
12. Write the structure and uses of miconazole.
13. Explain briefly about macrolide antibiotics.
14. Outline the synthesis of chloroquine.
15. Give the structure and uses of a β -lactamase inhibitor.
16. Write the structure of an antifungal antibiotic.
17. Outline the synthesis of mebendazole.
18. Write the structure and uses of a Biguanide.
19. Define antiprotozoal drugs with examples.

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**Sixth Semester B. Pharm Degree Supplementary Examinations
December 2022
Pharmacology III
(2017 Scheme)**

Time: 3 Hours

Max. Marks: 75

- *Answer all questions to the point neatly and legibly* • *Do not leave any blank pages between answers* • *Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together* • *Leave sufficient space between answers*
- *Draw diagrams wherever necessary*

Essays

(2x10=20)

1. Classify Antiulcer drugs and write the pharmacology of anti-secretory agents
2. Classify Antiviral drugs with suitable examples and explain the pharmacology of Acyclovir

Short Notes

(7x5=35)

3. Explain the mechanism of action and Adverse Drug Reaction of Erythromycin
4. Classify antifungal agents with suitable examples and explain the mechanism of Amphotericin-B
5. Explain the rationale behind the use of beta lactamase inhibitors
6. Write the mechanism of cough and classify antitussives
7. List the bronchodilators and explain their mechanism of action
8. Enumerate systemic amoebicides and write the mechanism of action of metronidazole derivative
9. List the different classes of Sulphonamides. Enumerate the mechanism of action of Co-trimoxazole

Answer Briefly

(10x2=20)

10. Write the applications of Biosimilars
11. List two clinically important Immunostimulants and their uses
12. List the drugs used in urinary tract infections
13. Explain the mechanism and uses of Albendazole
14. Explain the mechanism and adverse effect of aminoglycosides
15. Name any four drugs used in the treatment of psoriasis.
16. Classify topoisomerase inhibitors with suitable examples
17. Define Nasal decongestants and explain their mechanism with suitable examples
18. Explain the mechanism of vincristine
19. Outline the applications of stem cell therapy

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**Sixth Semester B. Pharm Degree Supplementary Examinations
December 2022
Herbal Drug Technology
(2017 Scheme)**

Time: 3 Hours

Max. Marks: 75

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- Answer all parts of a single question together • Leave sufficient space between answers
- Draw diagrams wherever necessary

Essays

(2x10=20)

1. What are aristas and asawas. Explain the method of preparation and standardization of aristas and asawas.
2. What are the different types of drug interactions. Explain the drug interactions and possible side effects of kava kava, garlic and ginseng.

Short Notes

(7x5=35)

3. Explain briefly about principle involved in Siddha system.
4. Explain the preparation and standardization of Ghutika.
5. Define bio-pesticides and mention their advantages.
6. Explain any two herbs as health food • Fenugreek • Chicory • Amla
7. Explain the role of nutraceuticals in irritable bowel syndrome and various gastro intestinal diseases.
8. Discuss on any two natural protective agents used in formulating herbal cosmetics.
9. Explain the method of preparation of herbal syrups and mixtures.

Answer Briefly

(10x2=20)

10. Define pest.
11. Enumerate the term patent.
12. Explain few natural colorants in herbal products.
13. Define herbal medicine.
14. Define Ayurveda.
15. Explain the source and uses of Spirulina.
16. Define nutraceuticals.
17. Mention the objectives of GMP.
18. Define bio piracy.
19. Sweeteners as excipients.

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**Sixth Semester B. Pharm Degree Supplementary Examinations
December 2022**

Biopharmaceutics and Pharmacokinetics

(2017 Scheme)

Time: 3 Hours

Max. Marks: 75

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*
- *Draw diagrams wherever necessary*

Essays

(2x10=20)

1. Explain the kinetics of one compartment open model extravascular administrations and explain the calculation of different kinetic parameters.
2. Explain the factors affecting protein-drug binding. Elaborate on the clinical significance of the same.

Short Notes

(7x5=35)

3. Classify mechanism of drug absorption from GIT. Explain vesicular transport.
4. State Michaelis Menton equation and explain its significance.
5. Methods to enhance bioavailability.
6. Describe the Wagner Nelson method for calculation of K_a .
7. Factors affecting renal excretion of drugs.
8. Elaborate on in-vitro invivo correlation.
9. Describe diffusion layer model and Noyes Whitney equation.

Answer Briefly

(10x2=20)

10. Apparent and real volume of distribution.
11. Scatchard plot in kinetics of protein binding.
12. Classification of drugs according to BCS system of classification.
13. What are the characteristic features of acetylation.
14. Explain the concept of clearance.
15. Explain bioequivalence studies.
16. Explain any one method to determine AUC.
17. Describe any two pharmacodynamics parameters.
18. Explain non-compartmental analysis.
19. Factors causing non-linearity in pharmacokinetics.

QP Code: 625006

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**Sixth Semester B. Pharm Degree Supplementary Examinations
December 2022**

Pharmaceutical Biotechnology

(2017 Scheme)

Time: 3 Hours

Max. Marks: 75

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*
- *Draw diagrams wherever necessary*

Essays

(2x10=20)

1. Define enzymes. Describe the general consideration to be followed for industrial production of enzymes. Write about production of amylase.
2. Write in detail about the method of collection, production, storage and uses of whole human blood and dried plasma.

Short Notes

(7x5=35)

3. Differentiate between Humoral immunity and Cell mediated immunity.
4. Recombinant Hepatitis B vaccine.
5. Explain briefly the western and southern blotting techniques.
6. Explain the method in the production of monoclonal antibody by hybridoma technology.
7. Different types of Immuno stimulants.
8. Plasma substitutes.
9. Explain the different methods of protein engineering.

Answer Briefly

(10x2=20)

10. Define MHC. (Major Histocompatibility Complex).
11. Give an example for attenuated and killed bacterial vaccine.
12. Applications of biosensors.
13. Name microorganisms used for production of citric acid.
14. Cloning vectors with an example.
15. Classify fermentation methods.
16. Explain PCR (Polymerase Chain Reaction)
17. Types of hypersensitivity reactions.
18. Gene expression.
19. Define Transposons.

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**Sixth Semester B. Pharm Degree Supplementary Examinations
December 2022**

Pharmaceutical Quality Assurance

(2017 Scheme)

Time: 3 Hours

Max. Marks: 75

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*
- *Draw diagrams wherever necessary*

Essays

(2x10=20)

1. Discuss the quality control test for containers and rubber closures used in pharmaceutical industry.
2. Explain on selection, purchase, and maintenance of equipment.

Short Notes

(7x5=35)

3. Discuss in detail about ICH stability testing guidelines.
4. Explain the qualification and responsibility of personnel
5. Design the layout of premises with reference to tablet section.
6. Give a note on Master formula record.
7. Explain in detail about material management in good warehouse practice
8. Explain the protocol for conduct of a nonclinical laboratory study
9. What are the qualifications of UV-Visible spectrophotometer.

Answer Briefly

(10x2=20)

10. Explain the principle involved in NABL accreditation.
11. What are the elements of Quality by Design program.
12. Give the importance of GLP adopted in testing facilities operation.
13. Define quality audit.
14. How will you dispose the waste materials from laboratory.
15. Give any two purchase specifications of raw materials.
16. Differentiate between qualification and validation.
17. Explain the purpose of ICH guidelines.
18. Brief the disqualification of testing facilities.
19. Explain the general principles of calibration.
