

QP Code: 521006

Reg. No.....

**Fifth Semester B. Pharm Degree Regular/Supplementary
Examinations January 2023
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. Explain briefly on the nomenclature, stereochemistry and metabolism of steroidal hormones.
2. What are local anesthetic agents. Classify them with structures of any two from each class. Explain the structure activity relationship and mechanism of action of local anesthetics.

Short Notes

(7x5=35)

3. The drugs used for erectile dysfunction.
4. Mechanism of action and synthesis of furosemide.
5. Classify antimetabolites used as antineoplastic agents with one structure from each class. Write the synthesis of mercaptopurine.
6. Centrally acting antihypertensive agents.
7. Enumerate the structure, mechanism of action and use of cetirizine.
8. Explain the synthesis of diphenhydramine and promethazine.
9. Explain the chemistry and pharmacological uses of cardiac glycosides.

Answer Briefly

(10x2=20)

10. Classify calcium channel blockers with one structure from each class.
11. Structure and use of omeprazole.
12. Classify antihyperlipidemic agents with examples.
13. Explain antineoplastic antibiotics.
14. Outline the functions of mineralocorticoids.
15. Classify diuretics with examples.
16. Outline the synthesis of chlorthiazide.
17. Explain the synthesis of isosorbide dinitrate and nitroglycerine.
18. Classify antiarrhythmic agents with examples.
19. Outline the structure and use of ethacrynic acid.

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**Fifth Semester B. Pharm Degree Regular/Supplementary
Examinations January 2023
Formulative Pharmacy
(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 various physico-chemical properties of drug substances in preformulation study.
2. Explain the manufacturing of hard gelatin capsule, and discuss the quality control test for finished capsules.

Short Notes

(7x5=35)

3. Describe the excipients used for tablet preparation.
4. Advantages of aerosols.
5. Explain the methods of sterilization of parenteral preparation.
6. Discuss various methods used for filling of aerosols.
7. Explain pyrogen and write the testing of pyrogen.
8. Explain the formulation of sunscreen lotions.
9. Explain legal and official requirements for containers.

Answer Briefly

(10x2=20)

10. Explain polymerization and its application.
11. Explain the factors affecting flow property.
12. Lyophilized product
13. List out advantages of pelletization technique.
14. List out various parts used for aerosol valve assembly.
15. BCS classification of drugs.
16. Classify different types of hair dyes.
17. Explain polishing of capsules.
18. Explain the vehicles used for parenteral preparation.
19. Explain the ideal characters of shampoos.

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**Fifth Semester B. Pharm Degree Regular/Supplementary
Examinations January 2023
Pharmacology II
(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 antiplatelet drugs. Describe the pharmacology of any one antiplatelet agent.
2. Classify antihypertensives. Explain the pharmacology of any one class of antihypertensive drugs with emphasis on therapeutic uses and adverse effects.

Short Notes

(7x5=35)

3. Explain drug interactions and adverse effects of digoxin.
4. Describe the mechanism of action and adverse effects of warfarin.
5. Explain the biosynthesis and physiological roles of histamine.
6. Physiological role of calcitonin.
7. Explain the mechanism of action of paracetamol and list its adverse effects.
8. HMG-Co A Reductase inhibitors.
9. 5-HT antagonists.

Answer Briefly

(10x2=20)

10. Explain vasodilators.
11. Uses of fibrinolytic agents.
12. Explain plasma volume expanders.
13. Potassium sparing diuretics.
14. Mention about functions of leukotrienes.
15. TNF-Alpha inhibitors use in rheumatoid arthritis.
16. List out the hormones released by anterior pituitary gland.
17. Mechanism of action of colchicine.
18. Mention about the selective estrogen receptor modulators. Give examples.
19. Explain anabolic steroids.

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**Fifth Semester B. Pharm Degree Regular/Supplementary
Examinations January 2023
Pharmacognosy and Phytochemistry II
(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 table/diagrams/flow charts wherever necessary*

Essays

(2x10=20)

1. Explain the industrial production, estimation and utilization of digoxin.
2. Discuss in detail the collection, constituents with uses and chemical test of opium.

Short Notes

(7x5=35)

3. Discuss the industrial production method and application of Senna glycosides
4. Dioscorea rhizome
5. Illustrate the pharmacognosy of Rauwolfia root.
6. Explain Taxus
7. Explain chromatographic techniques used in plant drug analysis.
8. Explain the term iridoids and discuss the pharmacognosy of Gentian
9. Explain the production and estimation of podophyllotoxin from its sources.

Answer Briefly

(10x2=20)

10. Name any two basic metabolic pathways in the formation of plant secondary metabolites.
11. Give the structure of sennosides.
12. Mention any two uses of bitter almond.
13. List the constituents of ginger and how will you mask the pungency of ginger.
14. Explain Lignans. Give examples.
15. Mention the spray reagents used to detect alkaloids.
16. Explain the confirmatory test for Asafoetida
17. Explain the therapeutic uses of cinnamon.
18. Name the different methods of feeding radio isotopes to plants in tracer technique.
19. Therapeutic use of colophony.

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**Fifth Semester B. Pharm Degree Regular/Supplementary
Examinations January 2023
Pharmaceutical Jurisprudence
(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 table/diagrams/flow charts wherever necessary*

Essays

(2x10=20)

1. Explain the administrative bodies of Drugs and Cosmetics Act, 1940 and Rules 1945. Write a note on the qualification, powers and duties of drug inspectors.
2. Describe the formation and circumstances which lead to the formation of Drug Enquiry Committee (Chopra Committee) and explain its objectives and final recommendations to the government.

Short Notes

(7x5=35)

3. Describe the Drug Price Control Order, 2013.
4. What are the duties and procedures adopted by government analysts.
5. What are the provisions under Medical Termination of Pregnancy Act.
6. Give the class of drugs and cosmetics prohibited from import.
7. Explain the constitution and function of state pharmacy council.
8. Define patent and proprietary medicines. Explain the labelling and packaging requirements of these medicines for export.
9. Procedure for the maintenance, transfer, acquisition of animals for experiment under Prevention of Cruelty to Animal Act, 1960.

Answer Briefly

(10x2=20)

10. Explain schedule X.
11. Name the controlling authorities under Drugs and Cosmetics Act, 1940.
12. Name the office for the control and regulation of opium cultivation.
13. Explain the power to suspend or revoke registration under Prevention of Cruelty to Animals Act, 1960.
14. Explain the conditions required for obtaining an import licence for drugs under Drugs and Cosmetics Act, 1940.
15. Differentiate between State and joint state pharmacy council.
16. Give few lines on prohibition of certain advertisements.
17. Define restricted licence.
18. Give the national list of essential medicines.
19. Draw the specimen label for schedule H drug
