

QP Code: 521006

Reg. No.....

**Fifth Semester B. Pharm Degree Supplementary Examinations
December 2023
Medicinal Chemistry 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 the classification, chemistry and mechanism of action of antiarrhythmic agents giving one structure from each class. Write the synthesis of Disopyramide
2. Classify antineoplastic agents giving the structure of one agent from each class and discuss the mechanism of action of antimetabolites and outline the synthesis of mercaptopurine

Short Notes

(7x5=35)

3. Chemistry of loop diuretics; synthesis of furosemide
4. Explain the SAR of anilide derivatives as local anesthetics and write the synthesis of benzocaine
5. Write note on various insulin preparations
6. Chemistry of H₂ receptor antagonist, synthesis of cimetidine
7. Write the structure and uses of the following drugs
a) Norgestrel b) Methimazole c) Hydrocortisone d) Diethyl stilbesterol
8. Write a note on drugs used in congestive heart failure
9. Classify calcium channel blockers giving one structure from each class and discuss the specific uses of 1,4 dihydropyridine class of calcium channel blockers

Answer Briefly

(10x2=20)

10. Structure of mifepristone and its uses
11. Why chlorpropamide is more potent antidiabetic agent than tolbutamide. Explain with structures
12. Outline the synthesis of acetazolamide
13. Outline the method of synthesis of promethazine
14. Give the structure of any two gastric proton pump inhibitors
15. What are alpha-glucosidase inhibitors. Give its mechanism of action and uses
16. Write the synthesis and uses of isosorbide dinitrite
17. Give the structure and uses of any one HMG-CoA reductase inhibitors
18. Mechanism of action and uses of potassium sparing diuretics
19. Write the structure, uses of any one thiazolidinedione class of drug

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**Fifth Semester B. Pharm Degree Supplementary Examinations
December 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 techniques used in preparation of pharmaceutical pellets. Add a note on the equipment used for the manufacture of pellets.
2. Briefly explain the quality control tests for a) In process b) Finished products for Tablets. Describe two methods of tablet coating.

Short Notes

(7x5=35)

3. Describe the working of a semi-automatic capsule filling machine.
4. Explain Toothpastes.
5. Explain the filling and sealing of ampoules.
6. Hydrolysis and Polymerization.
7. Stability studies of Pharmaceutical Aerosols.
8. Classify Capsules. Define bloom strength and its significance.
9. Briefly explain the method of dry granulation for tablets.

Answer Briefly

(10x2=20)

10. Enlist the types of aerosol system.
11. Explain sterile powders
12. Define direct compression method.
13. Write the formula for vanishing cream.
14. What are pyrogens.
15. What are eye ointments.
16. Importance of isotonicity.
17. Sunscreens.
18. Valves for Aerosols.
19. Classification of tablets.

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**Fifth Semester B. Pharm Degree Supplementary Examinations
December 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. Classify anti-hypertensive drugs with suitable examples. Explain the mechanism of action and adverse effects of any one class of anti-hypertensives (6+3+1)
2. Describe briefly on properties, mechanism of action and adverse effects of estrogen and progestin

Short Notes

(7x5=35)

3. Explain the mechanism of uterine contraction of oxytocin and write its adverse effects. (4+1)
4. Explain how propylthiouracil is useful as an anti-thyroid drug.
5. Explain the mechanism of action and adverse effects of oral contraceptives.
6. Describe the steps in the management of acute iron poisoning.
7. Define bioassay. Explain the bioassay of digitalis.
8. Describe how vitamin-K helps in blood coagulation. List two local hemostatic drugs (4+1)
9. Mechanism of action of digoxin.

Answer Briefly

(10x2=20)

10. List the adverse effects and uses of statins.
11. Antidote for fibrinolytic toxicity.
12. List the uses of anti-histaminic drugs.
13. Classify uterine relaxants with examples.
14. Use of immunosuppressants in rheumatoid arthritis.
15. Pharmacological actions of glucocorticoids on carbohydrate and protein metabolism.
16. Effect of parathormone on plasma calcium levels
17. List two uses and adverse effects of testosterone.
18. Write the clinical uses and adverse effects of dextran.
19. Describe a method to perform the bioassay of histamine.

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**Fifth Semester B. Pharm Degree Supplementary Examinations
December 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 role of chromatographic techniques in isolation and estimation of herbal drugs.
2. Define and classify glycosides, with examples. Write the source, chemical constituents, and method of extraction of Senna.

Short Notes

(7x5=35)

3. Write a note on lignans and carotenoids.
4. Explain tracer technique.
5. Describe the anatomy of Digitalis.
6. Describe method of production, and estimation of taxol.
7. Differentiate between Sumatra and Siam benzoin.
8. Describe the method of isolation and analysis of podophyllotoxin.
9. Explain the industrial production and estimation of vincristine and vinblastin

Answer Briefly

(10x2=20)

10. Give any five applications of spectroscopical methods.
11. Write the biological source, chemical constituents, and uses of Mentha.
12. What is super critical fluid.
13. Morphology of Rauwolfia.
14. Write the biological source, chemical constituents, and uses of Asafoetida.
15. Write the application of gel electrophoresis.
16. Name the flavonoids present in Liquorice. Give their medicinal importance.
17. Write the method of estimation of forskolin.
18. Define alkaloids, give examples, and mention its general properties.
19. Write the chemical tests to differentiate pale catechu and black catechu

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**Fifth Semester B. Pharm Degree Supplementary Examinations
December 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. Write the composition and functions of DTAB and DCC.
2. Explain the role and functions of drug inspector in Drug and Cosmetic Act.

Short Notes

(7x5=35)

3. Explain the code of pharmacist in relation to his trade.
4. Explain offences and penalties under Narcotic Drugs and Psychotropic Substances Act 1985.
5. Explain the functions and composition of state pharmacy council and joint state pharmacy council.
6. Write a note on DPCO.
7. Intellectual Property Rights.
8. Explain the approved places according to Medical Termination of Pregnancy Act.
9. What are the offences and penalties as per Prevention of Cruelty to Animals Act.

Answer Briefly

(10x2=20)

10. Mudaliar Committee.
11. Explain the calculation of prices of bulk drugs.
12. Right to Information Act.
13. Breeding and stocking of animals.
14. List the penalties under Drugs and Magical Remedies Act.
15. Define Schedule P and Schedule U.
16. Examples of permitted colors.
17. Export of alcoholic preparations.
18. Production of poppy straw.
19. National fund for controlling drug abuse.
