

QP Code: 521006

Reg. No.....

**Fifth Semester B. Pharm Degree Regular/Supplementary  
Examinations May 2025  
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. Classify diuretics giving one structure from each class. Discuss the chemistry of carbonic anhydrase inhibitors and outline synthesis of acetazolamide
2. Classify local anaesthetics giving the structure of one agent from each class. Explain the mechanism of action and SAR of benzoic acid derivatives. Outline the method of synthesis of Dibucaine

**Short Notes**

**(7x5=35)**

3. Explain the nomenclature and stereochemistry of steroids.
4. Classify anticoagulants and outline the method of synthesis of warfarin
5. Classify DNA alkylators giving the structure of one agent from each class and discuss the mechanism of action of DNA alkylators
6. Write the structure and uses of Thyroxine, Minoxidil, Clonidine, Hydralazine
7. Classify antiarrhythmic agents giving one structure from each class. Outline the synthesis of Disopyramide.
8. Discuss the chemistry of sulfonylurea derivatives as oral hypoglycaemics.
9. Explain how nitrovasodilators produce smooth muscle relaxation and write the synthesis of glyceryl trinitrate

**Answer Briefly**

**(10x2=20)**

10. Write the structure and uses of any two corticosteroids
11. Why chlorpropamide is more potent antidiabetic agent than tolbutamide. Explain with structures
12. Outline the synthesis of chlorthiazide
13. Outline the method of synthesis of triprolidine
14. Why second generation H<sub>1</sub> antihistamine loratadine is less sedative than first generation H<sub>1</sub> antihistamine
15. What are bile acid sequestering agents. Give its mechanism of action and uses
16. Outline the method of synthesis of Methotrexate
17. Give the structure and uses of any two proton pump inhibitors
18. Explain the structural features of lovastatin responsible for inhibiting HMG-CoA reductase enzyme
19. Write the structure and uses of sildenafil

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**Fifth Semester B. Pharm Degree Regular/Supplementary  
Examinations May 2025  
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. Explain the formulation of injections and sterile powders. Describe the quality control tests for parenteral.
2. Explain the extraction and production of hard gelatin capsule shells. Explain the stability testing of soft gelatin capsules.

**Short Notes**

**(7x5=35)**

3. Write a note on the quality control tests for pharmaceutical aerosols.
4. Explain eye ointments and eye lotions.
5. Write the composition of lipstick along with the role of each ingredient.
6. Explain oxidation and hydrolysis.
7. Discuss the coating pan and spray parameters to be considered during film coating of tablets.
8. Explain pelletization process.
9. Briefly explain the method of wet granulation for tablets.

**Answer Briefly**

**(10x2=20)**

10. Write a note on Laminar flow environments in sterile facility.
11. What is the importance of the hardness test for tablets.
12. What is polymerization.
13. Briefly explain sunscreens.
14. What are pyrogens.
15. Types of glass.
16. What are infusion fluids.
17. Partition coefficient.
18. Propellants for Aerosols.
19. Sterilization of parenteral.

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Reg. No.....

**Fifth Semester B. Pharm Degree Regular/Supplementary  
Examinations May 2025  
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-anginal drugs with examples. Write the mechanism, pharmacological actions, uses and side effects of glyceryl trinitrate
2. Classify oral hypoglycemic drugs with examples. Write the mechanism, pharmacological actions, uses and side effects of metformin

**Short Notes**

**(7x5=35)**

3. Write the mechanism of action, therapeutic uses and adverse effects of digitalis
4. Biosynthesis of prostaglandins
5. Bioassay of histamine
6. Mechanism of action and side effects of methotrexate
7. Symptoms and treatment of Aspirin poisoning
8. Discuss about Parathormone
9. Write a note on anti-gout drugs

**Answer Briefly**

**(10x2=20)**

10. Examples for anti-thyroid drugs
11. Define anti-diuretics. Give one example
12. Types of bioassay
13. What is triphasic response
14. Mechanism of action of furosemide
15. Two examples for anti-platelet drugs
16. Uses of estradiol
17. Types of insulin
18. Examples for plasma volume expanders
19. Functions of Vitamin D

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Reg. No.....

**Fifth Semester B. Pharm Degree Regular/Supplementary  
Examinations May 2025  
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 Shikimic acid pathway and specify the various secondary metabolites formed through their pathway
2. Discuss in detail about Senna

**Short Notes**

**(7x5=35)**

3. Autoradiography
4. Differentiate Sumatra benzoin and Siam benzoin
5. Explain the microscopy of Clove
6. Supercritical Fluid extraction
7. Various development techniques in paper chromatography
8. Discuss the industrial production of Taxol
9. Classify Glycosides

**Answer Briefly**

**(10x2=20)**

10. What is Rf value
11. Gold beater's skin test
12. Name any two colored and liquid alkaloids
13. Chemical constituents and uses of Cinchona
14. Adsorption chromatography
15. Define alkaloids
16. Applications of HPTLC
17. Biological source and uses of Liquorice
18. Chemical constituents and uses of ginger
19. Biological source and chemical constituents of Ephedra

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**CORRECTION / NO-CORRECTION FILE**

**QPCODE: 525006**

**Dated: 04-06-2025**

**Question No.3**

**Modified as "Write the procedure for granting license for the manufacture of Schedule C & C1 drugs."**

**Corrections/Modifications/Replacement of Questions if any shall be made available to all students. Take the print out of the Correction File in such cases and distribute to all students.**

**(Sd/-)**

**CONTROLLER OF EXAMINATIONS**

QP Code: 525006

Reg. No.....

**Fifth Semester B. Pharm Degree Regular/Supplementary**

**Examinations May 2025**

**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 general requirements and facilities required to avail the loan license and repacking license.
2. Explain the Good Manufacturing Practices as per Schedule M.

**Short Notes**

**(7x5=35)**

3. Write the procedure for granting of Schedule C and C1 drug license.
4. Write about national list of essential medicines.
5. Intellectual Property Rights.
6. Explain the procedure to obtain a patent.
7. Define magic remedies. Write prohibited advertisements under Drugs and Magic Remedies Act.
8. Role and responsibilities of Drugs Enquiry Committee.
9. Code of pharmacists in relation to his profession.

**Answer Briefly**

**(10x2=20)**

10. Define Schedule F and Schedule G.
11. Functions of DTAB.
12. Institutions Animal Ethics Committee.
13. Registration of pharmacists.
14. Patent and proprietary preparations.
15. Define the term advertisement and drug.
16. Define narcotic substances with examples.
17. Labelling requirements for ophthalmic preparation.
18. Offences and penalties as per the Pharmacy Act.
19. Brief the procedure of keeping documents as per Medical Termination of Pregnancy Act.

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