QP Code: 421006 **Reg. No…….**

Fourth Semester B.Pharm Degree Supplementary Examinations
November 2022
Pharmaceutical Organic Chemistry 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. Explain the stereochemistry of biphenyls and conditions for optical activity.
2. Discuss the reaction, mechanism and applications of Clemmenson reduction and Dakin reaction.

Short Notes **(7x5=35)**

3. Basicity of pyrrole and compare its basicity with pyridine.
4. Give the synthesis and reactions of indole.
5. What are stereospecific and stereoselective reactions, explain with suitable examples.
6. Define racemic modification. Explain any three methods for the resolution of racemic modification.
7. Explain the aromaticity of pyrrole, thiophene and furan.
8. Explain the various conformational isomers in cyclohexane.
9. Write the synthesis and reactions of acridine.

Answer Briefly **(10x2=20)**

10. Mention the synthetic importance of lithium aluminium hydride.
11. Write the resonance structures of thiophene.
12. Define meso compound with example.
13. Define Fischer projection formula.
14. Write the structure and medicinal uses of pyrazole derivative.
15. Define D and L system of nomenclature.
16. Give the reduction reaction for Furan.
17. Define R and S configuration with example.
18. Write the structure and medicinal uses of purine derivative.
19. Define geometrical isomerism.

****

QP Code: 422006 **Reg. No……..**

Fourth Semester B.Pharm Degree Supplementary Examinations
November 2022
Medicinal Chemistry - 1

(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. Elaborate the following physicochemical properties in relation to biological activities with suitable examples. • Hydrogen bonding • Geometrical Isomerism.
2. Discuss structural activity relationship of phenothiazine's and write synthesis of Chlorpromazine hydrochloride.

Short Notes **(7x5=35)**

3. Classify antipsychotic drugs and write mechanism of action of phenytoin and risperidone.
4. Summarize biosynthesis of acetylcholine.
5. Describe the factors affecting drug Metabolism with suitable examples.
6. Write the mechanism of action and synthesis of mefenamic acid.
7. Outline structural activity relationship of morphine analogues.
8. Write the synthesis and mechanism of action of propranolol.
9. Draw structure and uses of • Naphazoline • Haloperidol • Pentobarbital • Promazine • Trimethadione

Answer Briefly **(10x2=20)**

10. Classify general anesthetics.
11. Mention any four cholinergic blocking agents.
12. Mechanism of action and chemical structure of indomethacin.
13. Define Hypnotic and sedatives and give one example.
14. Bioisosterism.
15. Draw two structures of benzodiazepines.
16. Synthesis of ethosuximide
17. Write two structures of narcotic analgesic agent.
18. Relate any two β adrenergic agonists and antagonists.
19. Mechanism of action and uses of valproic acid.

****

QP Code: 423006 **Reg. No…….**

Fourth Semester B.Pharm Degree Supplementary Examinations
November 2022
Physical Pharmaceutics 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. Define order of reaction. Derive an equation for rate and half life for zero and first order reaction.
2. Define colloids. Give its types. Explain optical properties of colloids.

Short Notes **(7x5=35)**

3. Discuss pseudo plastic flow behaviour
4. Give the working principle of cup and bob viscometer with a labeled diagram
5. Explain flocculated and deflocculated suspensions
6. Rheology in • Emulsions • Suspensions
7. State and explain Langmuir adsorption isotherm
8. Derive an equation for spreading coefficient. What is its significance
9. Protection of drugs against oxidation

Answer Briefly **(10x2=20)**

10. Name two instruments used to measure surface tension
11. Plastic deformation
12. Write the application of HLB
13. Gold number
14. Phase inversion.
15. Stokes law
16. Arrhenius equation
17. Multiple emulsions
18. Apparent zero order reaction
19. Thixotropy

****

QP Code: 424006 **Reg. No…….**

Fourth Semester B.Pharm Degree Supplementary Examinations
November 2022
Pharmacology I

(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 parasympatholytics with examples. Describe the pharmacological actions and mention the therapeutic uses of atropine.
2. Classify opioid analgesics with examples. Describe the mechanism of action and pharmacological actions of morphine.

Short Notes **(7x5=35)**

3. Describe phase II reactions of drug metabolism with examples.
4. Describe the signal transduction mechanisms of G-protein coupled receptors.
5. Describe the design of phase III clinical trials.
6. Describe the neuro humoral transmission in the adrenergic nervous system.
7. Compare and contrast anesthetic ether and halothane.
8. Mention various drugs used in Parkinson's disease and describe the pharmacology of any one of them.
9. Describe gabaminergic transmission.

Answer Briefly **(10x2=20)**

10. Define agonist and antagonist with one example.
11. What is idiosyncrasy.
12. Define teratogenicity with examples.
13. What is the rationale in combining adrenaline with lignocaine.
14. Name two centrally acting muscle relaxants.
15. What is the rationale for the use of disulfiram.
16. Mention the therapeutic uses and toxicities of imipramine.
17. Define drug tolerance with an example.
18. Name two drugs useful in grandmal epilepsy.
19. Define median lethal dose.

****

QP Code: 425006 **Reg. No……..**

Fourth Semester B.Pharm Degree Supplementary Examinations
November 2022
Pharmacognosy and Phytochemistry I

(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. Enumerate the different methods of classification of crude drugs of natural origin. Explain the morphological and chemical classification.
2. Write the definition, classification, properties and general chemical tests for the identification of alkaloids.

Short Notes **(7x5=35)**

3. Explain the physical evaluation of crude drugs.
4. Lycopodium spore method.
5. Plant hormones and its applications.
6. Write the principle involved in the siddha system of medicine.
7. Define and classify volatile oils with suitable examples.
8. Describe the biological source, chemical constituents and uses of cannabis and colchicum.
9. Write the source and method of preparation of castor oil.

Answer Briefly **(10x2=20)**

10. Different sources of crude drugs.
11. Merits and demerits of taxonomical classification of crude drugs.
12. Enumerate the different factors influencing cultivation of medicinal plants.
13. Define mutation and polyploidy.
14. Define edible vaccines.
15. Chemical test for the identification of O glycosides.
16. Biological source and uses of jute.
17. Fiehe's test.
18. Source and therapeutic uses of Chaulmoogra oil.
19. Name any four anticancer drugs from marine source.

****