QP Code: 321006 **Reg. No……**

Third Semester B. Pharm Degree Supplementary Examinations October 2024

Pharmaceutical Organic 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 table/diagrams/flow charts wherever necessary***

Essays **(2x10=20)**

1. List out the various analytical constants. Elaborate on the principle and significance of acid value and acetyl value.
2. Explain the nitration and sulphonation reaction mechanisms of benzene.

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

3. Write a note on the effect of substituents on the orientation of mono substituted benzene.
4. Give a note on saturated and unsaturated fatty acids.
5. Summarize on Huckel's rule.
6. Mention the synthesis and reactions of anthracene.
7. Discuss on Coulson and Moffit's modification.
8. Write the reactions of cyclopropane and cyclobutane.
9. Write down the evidences for deriving the structure of benzene.

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

10. Mention a mode of preparation for an aromatic amine.
11. Why poly nuclear hydrocarbons are named so.
12. Define saponification with example.
13. Drying of oils.
14. List out any four important reactions of phenols.
15. Mention any two examples of fatty acids.
16. Write the structure and chemical name of any two aromatic amines.
17. Draw the resonating forms of benzene.
18. What are Lewis acids and Lewis bases.
19. Point out two limitations of Baeyer's strain theory.

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QP Code: 322006 **Reg. No……**

Third Semester B. Pharm Degree Supplementary Examinations October 2024

Physical Pharmaceutics 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. Discuss Raults law for ideal solution with neat, labelled vapour pressure curve.
2. Describe the method to determine number and weight distribution of particles.

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

3. Explain the effect of temperature on solubility with solubility curve.
4. Explain different types of powder densities.
5. Define Polymorphism and mention its applications in pharmacy.
6. Explain distribution law.
7. Describe one method for the determination of complex equilibrium stability constant.
8. Differentiate between calorimetric and electrometric method to determine the pH of a solution.
9. Explain the applications of buffers in pharmacy.

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

10. Define dissociation constant and mention its one application in pharmacy.
11. Define eutectic mixtures.
12. Mention any two applications of monomolecular inclusion complexes.
13. Explain the principle involved in the method of pH titration in complexation.
14. Define critical solution temperature and mention its application.
15. Describe the effect of drug-protein binding on absorption of drug.
16. Classify liquid-liquid solutions and give examples.
17. What does pH indicator mean. Write its applications.
18. Write two applications of buffers with specific examples.
19. Importance of istonicity in pharmaceutical formulations.

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QP Code: 323006 **Reg. No……**

Third Semester B. Pharm Degree Supplementary Examinations
October 2024
Pharmaceutical Microbiology

(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 principle, construction, working and validation methods of autoclave.
2. Discuss the phenol coefficient methods for evaluation of disinfectants

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

3. Virus cultivation by chick embryo technique
4. Cultivation of anaerobic bacteria
5. Two bacteriostatic evaluation tests
6. Principle of starch hydrolysis test
7. Construction and applications of a Laminar Air flow unit
8. Principle involved in microbial assay of antibiotics
9. Sporogenesis in bacteria

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

10. Who discovered • Rabies Vaccine • Small pox vaccine
11. Functions of bacterial capsule
12. Composition of nutrient agar media
13. Two fungal media
14. Principle of dark field microscopy
15. Principle of acid fast staining
16. Significance of pili and flagella
17. Differentiate prokaryotes and eukaryotes
18. Pasteurization
19. Four applications of animal cell culture

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