ADICHUNCHANAGIRI UNIVERSITY

Pharm.D Annual Examination – August 2021

TIME: 3 HOURS **MAX.MARKS: 70 MARKS**

Sub: Human Anatomy and Physiology

Q P Code: - 44101

INSTRUCTIONS: 1. Your answer should be specific to the questions asked.
2. Write legibly.
3. Write the same question numbers as they appear in this question paper.
4. Draw neat labelled diagrams wherever necessary.

I. Long essays (answer **any two**) 2X10=20

1 Explain the anatomy of eye with neat labeled diagram and describe physiology of vision.

2 Draw a neat labeled diagram of female reproductive system. Describe the principle events of Oogenesis.

3 Mention the clotting factors and write the mechanisms involved in blood coagulation.

II. Short essays (answer **any six**) 6X5=30

4 Describe the location, structure and functions of the various types of connective tissue.

5 Enlist the functions of the kidney.

6 Describe the anatomy and physiology of Pancreas.

7 Mention the hormones of pituitary gland. Mention one function each.

8 Discuss the various functions of cerebrum and hypothalamus.

9 Write the anatomy and physiology of sympathetic nervous system.

10 Draw a neat labeled diagram of internal anatomy of heart.

11 Explain the mechanism of respiration.

III. Short answers (answer **all**) 10X2=20

12 What is parturition? Mention stages of parturition.

13 Mention the functions of cytosol.

14 Classify bones based on their shape.

15 Enlist the properties of muscular tissue.

16 What is the function of lacrimal apparatus?

17 Define cardiac output.

18 Name the parts of the ear.

19 What is myasthenia gravis? Mention its symptoms.

20 Define the following terms: a) Hemostasis b) Bradycardia
c) Arteriosclerosis d) Hypoxia.

21 What are the functions of Spleen?

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Pharm.D Annual Examination – August 2021

TIME: 3 HOURS **MAX.MARKS: 70 MARK**

Sub: Pharmaceutics I
Q P Code: - 44102

INSTRUCTIONS: 1. Your answer should be specific to the questions asked.
2. Write legibly.
3. Write the same question numbers as they appear in this question paper.
4. Draw neat labelled diagrams wherever necessary.

I. Long essays (answer **any two**) 2X10=

1 Define emulsions. Write the advantages and disadvantages of emulsions. Classify emulsifying agents.

2 Define prescription. Explain different parts of a prescription. Add a note on handling of prescription.

3 Discuss various stages involved in manufacturing of surgical catgut.

II. Short essays (answer **any six**) 6X5=

4 Define dosage forms. Write the classification table for the various types of dosage forms.

5 Define posology. Enumerate four factors affecting selection of dose of a drug.

6 Define pharmacopoeia. Write the salient features of third edition of Indian pharmacopoeia.

7 Prepare 600 ml of 80% alcohol from 95% alcohol by allegation method.

8 Discuss in detail about soxhlet extraction process.

9 Define and classify powder dosage form. Write the difference between simple and compound powders with an example.

10 Discuss in detail the preparation of suppositories using moulding method.

11 Discuss therapeutic incompatibility with examples.

III. Short answers (answer **all**) 10X2=

12 Scope of profession pharmacy in India.

13 Why does simple syrup IP does not have any preservative?

14 Write the differences between boilable and non-boilable catgut.

15 Differentiate the term marc and menstruum.

16 Define geometric dilution.

17 What is young's rule?

18 Define enemas. Give two examples.

19 What is phase inversion?

20 Define displacement value. Write the formula to calculate it.

21 Convert 50%v/v alcohol into proof spirit.

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ADICHUNCHANAGIRI UNIVERSITY

Pharm.D Annual Examination – August 2021

TIME: 3 HOURS **MAX.MARKS: 70 MARKS**

Sub: Pharmaceutical Organic Chemistry - I
Q P Code: - 44103

INSTRUCTIONS: 1. Your answer should be specific to the questions asked.
2. Write legibly.
3. Write the same question numbers as they appear in this question paper.
4. Draw neat labelled diagrams wherever necessary.

I. Long essays (answer **any two**) 2X10=20

1 Describe Nucleophiles and leaving group. Write the mechanism, kinetics and stereochemistry of SN1 and SN2 reactions.

2 Explain briefly about Aldol condensation and Benzoin condensation with mechanism and its application

3 Explain 1, 2 eliminations. Write the mechanism, orientation and reactivity of E1 and E2 reaction with appropriate examples

II. Short essays (answer **any six**) 6X5=30

4 Explain Bayer's theory for stability of cycloalkanes

5 Explain Lewis theory of acid and base with examples

6 Write the nomenclature of carboxylic acid and alcohol with structural examples.

7 Write any four method of preparation of Cycloalkanes

8 Write a note on Elimination Vs Substitution

9 Explain Markownikoff and Anti Markownikoff addition with examples

10 Explain the mechanism of free radical substitution reaction with suitable examples.

11 Give the mechanism of 1,2-and 1,4-addition reaction

III. Short answers (answer **all**) 10X2=20

12 Define polarity and dipole moment with examples

13 Define and classify isomerism

14 Define leaving groups with examples.

15 Explain Claisen condensation with example

16 Write a short note on acidity of phenols

17 Give one example of nucleophilic aromatic substitution

18 Define redox reaction. Give example

19 Write the structure and uses of a)Vanillin b)Nitroglycerin

20 Compare the basicity among ammonia, ethylamine, tertiary butylamine

21 Write the preparation and uses of aspirin.

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Pharm.D Annual Examination – August 2021

TIME: 3 HOURS **MAX.MARKS: 70 MARKS**

Sub: Medicinal Biochemistry
Q P Code: - 44104

INSTRUCTIONS: 1. Your answer should be specific to the questions asked.
2. Write legibly.
3. Write the same question numbers as they appear in this question paper.
4. Draw neat labelled diagrams wherever necessary.

I. Long essays (answer **any two**) 2X10=20

1 Explain the DeNovo biosynthesis of fatty acids.

2 Define enzymes. Classify them with example. Explain the factors affecting enzyme activity.

3 Explain glycolysis and give its significance with energetic.

II. Short essays (answer **any six**) 6X5=30

4 Explain β-oxidation reactions of fatty acids.

5 Write notes on components of electron transport chain.

6 Outline HMP shunt pathway.

7 Describe the reactions of pyrimidine nucleotide metabolism.

8 What is radioimmuno assay? Give its principle and applications.

9 What are ketone bodies? Explain the formation and importance of ketone bodies.

10 List out the tests to assess the renal function. Explain the clearance tests for creatinine and urea.

11 Define mutation. Explain various types of mutation.

III. Short answers (answer **all**) 10X2=20

12 Define oxidative phosphorylation with example.

13 What are isoenzymes? With example.

14 What is fatty liver?

15 Define energy rich compounds with example.

16 What is transamination and deamination with example?

17 Amphibolic nature of TCA cycle.

18 Give the therapeutic importance of enzymes.

19 Define nucleosides and nucleotides.

20 What is cyclic AMP?

21 What are competitive enzyme inhibitors? Give an example.

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ADICHUNCHANAGIRI UNIVERSITY

Pharm.D Annual Examination – August 2021

TIME: 3 HOURS **MAX.MARKS: 70 MARKS**

Sub: Pharmaceutical Inorganic Chemistry - I
Q P Code: - 44105

INSTRUCTIONS: 1. Your answer should be specific to the questions asked.
2. Write legibly.
3. Write the same question numbers as they appear in this question paper.
4. Draw neat labelled diagrams wherever necessary.

I. Long essays (answer **any two**) 2X10=20

1 Explain law of mass action and write a note on choice of indicators

2 Write principle used for limit test for arsenic with neat labelled diagram.

3 Define antacids with suitable examples. Write qualities of ideal antacid and write a note on combination therapy.

II. Short essays (answer **any six**) 6X5=30

4 What are radio pharmaceuticals and give their clinical application.

5 What are pharmaceutical aids give examples and preparation of any one.

6 Explain the theory of non-aqueous titration.

7 Explain the concept of gravimetry.

8 Give the preparation and uses of Nitrous oxide, Helium.

9 Explain neutralization curves with choice of indicators in acid base titration.

10 Define limit test. Write principle and process used for limit test for Heavy metals.

11 Explain iodimetry and iodometry with example.

III. Short answers (answer **all**) 10X2=20

12 Give the medicinal uses of nitrogen, oxygen, carbon dioxide.

13 Explain the different sources of impurities.

14 What are anti caries agents give example.

15 Explain the physiological role of iron and Selenium.

16 What are anti-microbial give example.

17 Define acidifiers and antacids give examples.

18 Explain the components used for electrolyte replacement therapy.

19 What are Cathartics give example.

20 Give the applications of Volumetric analysis.

21 Define Sclerosing agents, Expectorants with examples.

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