ADICHUNCHANAGIRI UNIVERSITY

B.Pharmacy II Semester Examination – September 2019

TIME: 3 HOURS **MAX.MARKS: 75 MARKS**

SUB: Pathophysiology

Q P Code:- 11224

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.

LONG ESSAY (answer **any two**) **2X10=20**

1. Briefly explain the types and symptoms of Alkalosis and Acidosis?
2. What is Atherosclerosis? Explain the pathogenesis involved in Atherosclerosis?
3. Write the etiology, route of transmission, pathogenesis, signs and symptoms of AIDS?

SHORT ESSAY (answer **any seven**) **7X5=35**

4. Distinguish between Apoptosis and Necrosis?
5. Explain the pathophysiology of Megaloblastic Anemia?
6. Explain the pathophysiology of Hypertension?
7. Write a pathogenesis of Ischemic heart disease.
8. Explain the pathophysiology of Acute Renal Failure?
9. Describe the pathogenesis of Schizophrenia?
10. Write the causative organism, signs & symptoms, mode of transmission and types of UTI?
11. Explain Pathogenesis of Peptic Ulcer?
12. Briefly explain the pathogenesis of Asthma?

SHORT ANSWERS (answer **all** the questions) **10X2=20**

13. Mention any four causes of Electrolyte Imbalance?
14. Define and mention the types of Inflammation?
15. Mention the role of Histamine in Acute Inflammation?

16. Write the difference between Depression and Epilepsy / schizophrenia

17. Write the signs and symptoms of Hypothyroidism?

18. Define COPD and IHD?

19. What are the signs and symptoms of Osteoporosis?

20. Define and list the types of epilepsy?

21. Mention the difference in pathogenesis of stable and unstable angina?

22. Define and mention the types of jaundice?

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ADICHUNCHANAGIRI UNIVERSITY

B.Pharmacy II Semester – September 2019

TIME: 3 HOURS **MAX.MARKS: 75 MARKS**

SUB: BIOCHEMISTRY

Q P Code: - 11223

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.

LONG ESSAY (answer **any two**) **2X10=20**

1. Describe the β-Oxidation of fatty acids with energetics considering palmitic acid as example
2. Explain reaction sequences of glycolysis and its energetics.
3. Explain the general reactions involved in metabolism of amino acids.

SHORT ESSAY (answer **any seven**) **7X5=35**

4. Explain the synthesis of bile acids
5. Write the metabolism of purine nucleotides.
6. Define genetic code and give its salient features.
7. Explain in detail about diagnostic and therapeutic applications of enzymes.
8. Define coenzymes. Give the structure and functions of NAD & FAD.
9. Write in detail about concept of free energy, exergonic and endergonic reaction.
10. Explain the electron transport chain.
11. Explain gluconeogenesis with its reactions. Write about its importance.
12. Describe the process of transcription.

SHORT ANSWERS (answer **all the questions**) **10X2=20**

13. What are cofactors? Give examples.

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14. Define nucleosides and nucleotides.

15. Write the significance of line weaver burk plot.

16. Write the structure and functions of cAMP.

17. Give the amphibolic nature of Krebs cycle.

18. Name the glucogenic amino acids.

19. What is isoelectric point?

20. Define essential fatty acids with examples.

21. Write four differences between DNA and RNA.

22. What is Gout?

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ADICHUNCHANAGIRI UNIVERSITY

B. Pharmacy II Semester Examination – September 2019

TIME: 3 HOURS **MAX.MARKS: 75 MARKS**

SUB: Pharmaceutical Organic Chemistry I

Q P Code: - 11222

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.

LONG ESSAYS (answer **any two**) **2X10=20**

1. What are nucleophilic substitution reactions. Explain kinetics, mechanism and stereochemistry of S_N1 reactions.
2. Define aldol condensation and Cannizzaro's reaction. Explain their mechanisms.
3. Explain the mechanisms of E_1 and E_2 reactions with their kinetics, orientation and order of reactivity.

SHORT ESSAYS (answer **any seven**) **7X5=35**

4. What happens when propene is treated with HBr in presence and absence of peroxides. Write any one mechanism.
5. Write the structure and uses of Chlorobutanol, benzyl alcohol and propylene glycol.
6. Explain about the free radical addition reaction of conjugated dienes.
7. What is basicity? Explain the effect of substituents on the basicity of amines.
8. Write the IUPAC rules for the branched chain alkanes.
9. Write the qualitative tests for identification of aldehydes. Give the structure and uses of Hexamine and Vanillin.
10. Compare and contrast the E1 and E2 reactions.
11. Write the reaction mechanism of Chlorination of methane.
12. Write the structure and uses of Tartaric acid, Citric acid, Benzoic acid and salicylic acid.

SHORT ANSWERS (answer **all**) **10X2=20**

13. Give the order of stability of alkenes.
14. Write the structure and uses of dichloromethane.
15. What is hybridisation? Give an example.
16. Define Ozonolysis. Give one example.

17. Explain about the rearrangement of carbocations.
18. Give the structures of iso-butyl chloride, test-butyl bromide.
19. Which one is more acidic among acetic acid and Chloroacetic acid and why?
20. Explain why addition reactions are characteristic reactions of Alkenes.
21. What is Walden inversion? Give an example.
22. Write the uses of paraffins.

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ADICHUNCHANAGIRI UNIVERSITY

B.Pharmacy II Semester Examination September 2019

TIME: 3 HOURS **MAX.MARKS: 75 MARKS**

SUB: Human Anatomy & Physiology II

Q P Code:- 11221

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.

LONG ESSAY (answer **any two**) **2X10=20**

1. Draw a neat labelled diagram of brain; Write two functions of each part of the brain.
2. Discuss the functional role of each hormone of pituitary gland.
3. Describe the anatomy of liver along with a neat labelled diagram. List out the functions of liver.

SHORT ESSAY (answer **any seven**) **7X5=35**

4. Explain briefly about the transport of respiratory gases.
5. Describe the structure and functions of ovary.
6. Write the functions of small intestine.
7. Explain spermatogenesis.
8. Write the hormones secreted by adenohypophysis and mention its functions.
9. Functions of sympathetic nervous system.
10. Explain the process of formation of urine.
11. Write the functions of hypothalamus.
12. Explain the functions of pancreas.

SHORT ANSWERS (answer **all** the questions) **10X2=20**

13. Define gene and chromosome.
14. Define meninges of brain.
15. Draw a neat diagram of reflex arc.
16. Define the terms – Renal calculi, cystitis.
17. What is parturition?

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18. Write the significance of creatinine phosphate.
19. Role of pepsin in digestion.
20. Oogenesis.
21. Composition of pancreatic juice.
22. Differences between diabetes mellitus and diabetes insipidus.

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