ADICHUNCHANAGIRI UNIVERSITY

B.Pharmacy II Semester Examination – December 2021

TIME: 2.30 Hours **MAX.MARKS: 55**

SUB: Human Anatomy & Physiology II
(Revised syllabus)
QP CODE: 11221

Instructions: 1. Answer MCQ's in a separate **OMR sheet**
2. Your answer should be specific to the questions asked.
3. Write the same question numbers as they appear in this question paper.
4. Write Legibly.
5.Draw neat labelled diagrams wherever necessary.

I. Multiple choice questions **20X1=20**

II. LONG ESSAYS (Answer any Two) **2X10=20**

1. Describe the structure and functional areas of cerebrum.
2. Mention the hormones of pituitary gland. Write one function each.
3. Describe the structure of kidney and explain its functions.

III. SHORT ESSAYS (Answer any Seven) **7X5=35**

4. Mention cranial nerves and write one function each.
5. Name salivary glands and discuss the composition and functions of saliva
6. Explain how digestion takes place in stomach
7. Write composition and functions of gastric juice.
8. Write a note on Renin-Angiotensin-aldosterone system
9. Explain the steps involved in the process of spermatogenesis and oogenesis.
10. Write the synthesis, storage, release and functions of thyroid hormones.
11. Give an account of transport of oxygen and carbon dioxide in the blood.
12. Describe the different phases of female reproductive cycle

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B.Pharmacy II Semester Examination – December 2021

TIME: 2.30 Hours **MAX.MARKS: 55**

SUB: Pharmaceutical Organic Chemistry I

QP CODE: 11222

Instructions: 1. Answer MCQ's in a separate **OMR sheet**
2. Your answer should be specific to the questions asked.
3. Write the same question numbers as they appear in this question paper.
4. Write Legibly.
5.Draw neat labelled diagrams wherever necessary.

I. Multiple choice questions 20X1=20

II. LONG ESSAYS (Answer any Two) 2X10=20

1. Discuss with an example the mechanism of electrophilic addition of conjugated dienes. Explain the mechanism of E1 reaction with proper evidences.
2. Define hybridization. Discuss about SP_3 hybridization in alkenes with suitable example and add a note on stabilities of alkenes.
3. Write the difference between S_N1 and S_N2 reactions. Propose a suitable class of solvents for S_N1 and S_N2 reactions and justify your answer.

III. SHORT ESSAYS (Answer any Seven) 7X5=35

4. Draw structures for the following IUPAC names.
   a) 2,4,4-Trimethylheptane b) 5-Bromo-2-Methyl-4-isopropylnonane
   c) Allyl alcohol d) But-2-ene
   e) 1-Bromo-3-ethyl-5-methylcyclohexane
5. Explain with reactions the mechanism of chlorination of methane..
6. Define the following reactions with an example.
   a) Diels-Alder reaction b) Markovnikov's rule of addition
7. What is aldol condensation? Discuss its mechanism ?
8. Why acetic acid is weaker than formic acid whereas strongly acidic than benzoic acid?
9. Explain with mechanism the Cannizaro reaction.
10. Write the qualitative test for the following a.Amide b. Ertee
11. Discuss the stability of carbocations. Predict the order of stability.
12. Give the structure and uses of the following compounds:
    a) oil of wintergreen b) paraldehyde c) benzyl benzoate
    d) dimethyl phthalate e) lactic acid

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B.Pharmacy II Semester Examination – December 2021

TIME: 2.30 Hours **MAX.MARKS: 55**

SUB: Biochemistry

QP CODE: 11223

Instructions: 1. Answer MCQ's in a separate **OMR sheet**
2. Your answer should be specific to the questions asked.
3. Write the same question numbers as they appear in this question paper.
4. Write Legibly.
5.Draw neat labelled diagrams wherever necessary.

I. Multiple choice questions **20X1=20**

II. LONG ESSAYS (Answer any Two) **2X10=20**

1. Describe the glycolytic pathway in detail with energetics.
2. Explain the β-oxidation of palmitic acid with energetics.
3. Explain the de novo synthesis of purine nucleotides.

III. SHORT ESSAYS (Answer any Seven) **7X5=35**

4. Write a note on energy rich compounds.
5. Differentiate between oxidative and substrate phosphorylation.
6. Write a note on ketone bodies.
7. Write the salient features of genetic code.
8. Explain the different types of enzyme inhibition.
9. Classify lipids and write their biological significance.
10. Write the reactions of HMP shunt and its significance.
11. Explain the urea cycle.
12. What are enzymes? Explain the properties of enzymes.

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B.Pharmacy II Semester Examination – December 2021

TIME: 2.30 Hours **MAX.MARKS: 55**

SUB: Pathophysiology

QP CODE: 11224

Instructions: 1. Answer MCQ's in a separate **OMR sheet**
2. Your answer should be specific to the questions asked.
3. Write the same question numbers as they appear in this question paper.
4. Write Legibly.
5. Draw neat labelled diagrams wherever necessary.

I. Multiple choice questions 20X1=20

II. LONG ESSAYS (Answer any Two) 2X10=20

1. Describe the pathogenesis of irreversible cell injury induced by hypoxia/ ischemia?
2. Define angina pectoris. Briefly discuss types and pathogenesis of angina?
3. Explain the pathophysiology of peptic ulcer disease?

III. SHORT ESSAYS (Answer any Seven) 7X5=35

4. List out the Chemical mediators of inflammation?
5. Explain the pathogenesis involved in Atherosclerosis?
6. Write the pathogenesis of ischemic stroke?
7. Explain the pathogenesis of syphilis?
8. Describe the pathophysiology of chronic renal failure?
9. Add a note on erectile dysfunction?
10. Write the pathogenesis of gout?
11. Add a note on megaloblastic anemia?
12. Differentiate between benign and malignant tumor?

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