

QP Code: 221006

Reg. No.....

**Second Semester B. Pharm Degree Regular/Supplementary
Examinations October 2024**

**Human Anatomy and Physiology 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. Discuss in detail structure, synthesis and functions of thyroid gland and thyroid hormones
2. Explain the physiology of urine formation

Short Notes

(7x5=35)

3. Brain stem
4. Gastric acid production in the stomach and regulation
5. Gaseous exchange at alveoli
6. Formation and role of ATP and creatinine phosphate
7. Physiology of menstruation
8. Chromosome
9. Process of Oogenesis

Answer Briefly

(10x2=20)

10. Receptors
11. Reflex action
12. Role of pepsin in protein digestion
13. Glucagon
14. Micturition
15. Sex hormones
16. BMR
17. Parturition
18. Genetic code
19. Ovaries

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**Second Semester B. Pharm Degree Regular/Supplementary
Examinations October 2024
Pharmaceutical Organic Chemistry 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 table/diagrams/flow charts wherever necessary

Essays

(2x10=20)

1. Explain the acidity of carboxylic acids and effects of substituents on the acidity of carboxylic acids with suitable examples.
2. a) What are the rules followed in writing the IUPAC name of Alkanes, alkenes and alkynes
b) Give the classification of isomerism and explain structural isomerism with examples.

Short Notes

(7x5=35)

3. Explain the stability of carbocation and write a note on the rearrangement of carbocations.
4. What is Anti-Markownikoff's rule. Explain the free radical addition reactions of alkenes.
5. What are the factors affecting SN₁ reaction
6. Explain the kinetics and order of reactivity of alkyl halides in SN₁ and SN₂ reactions.
7. Explain the nucleophilic addition reactions of aldehydes by taking two examples and add a note on electromeric effect.
8. Give the qualitative tests for carbonyl compounds.
9. Write the structure and uses of acetic acid, lactic acid and tartaric acid.

Answer Briefly

(10x2=20)

10. Write the name of the functional group having formula: a) –OH b) –COOH
11. Give the IUPAC name for the following: a) Acetaldehyde, b) Dimethyl ether
12. What is Diel Alder reaction.
13. What are dienes. Give one example of conjugated diene.
14. Write the structure and uses of benzyl alcohol and propylene glycol.
15. Give one example of monohydric and dihydric alcohol.
16. Give the structure and uses of acetone and chloral hydrate.
17. Give the reaction to prepare cinnamic acid.
18. Compare the basicity of ammonia and methylamine. Explain.
19. Give two qualitative tests for amines

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**Second Semester B. Pharm Degree Regular/Supplementary
Examinations October 2024
Biochemistry
(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 glycolysis with its energetics.
2. Define beta oxidation. Explain the steps in the beta oxidation of palmitic acid along with energetics.

Short Notes

(7x5=35)

3. Different types of enzyme inhibition with examples.
4. State the relationship between free energy, enthalpy, and entropy.
5. Account the therapeutic and diagnostic applications of enzymes.
6. Write the classifications and functions of carbohydrates.
7. Add a note on oxidative phosphorylation and its mechanism.
8. Narrate catabolism of purine nucleotides.
9. Explain the transcription process.

Answer Briefly

(10x2=20)

10. Biological significance of cholesterol.
11. Ketolysis and its significance.
12. Define transamination with an example.
13. Applications of isoenzymes.
14. What are glycogen storage diseases.
15. Genetic code.
16. DNA replication.
17. Types and functions of RNA.
18. Define and classify lipids with examples.
19. Define nucleosides and nucleotides with examples.

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**Pathophysiology
(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 pathogenesis of irreversible cell injury
2. Explain the etiology and pathogenesis of cancer

Short Notes

(7x5=35)

3. Discuss about cell-derived chemical mediators of inflammation
4. Explain various cellular adaptation
5. Write the pathophysiology of hypertension
6. Write the etiology and pathophysiology of asthma
7. Discuss the pathophysiology of diabetes mellitus
8. Write the classification and clinical presentations of epilepsy
9. Write the etiology and pathophysiology of peptic ulcer disease

Answer Briefly

(10x2=20)

10. Mention the etiology and clinical presentations of syphilis
11. Write the etiology and clinical presentations of urinary tract Infections
12. Write the pathogenesis of leprosy
13. Differentiate between benign and malignant neoplasms
14. Write the causes and clinical presentations of hepatitis
15. Briefly outline the pathophysiology of rheumatoid arthritis
16. Write pathophysiology of depression
17. Write the pathogenesis of ischaemic stroke
18. What are the etiology and symptoms of acute kidney failure
19. Write the etiological classification of anemia
