

QP Code: 221006

Reg. No.....

**Second Semester B. Pharm Degree Supplementary Examinations
April 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. Draw a neat labelled diagram of a neuron and explain its structure. Classify neuroglial cells of the nervous system and give any one function of each neuroglial cell.
2. Describe the external and internal anatomy of the thyroid gland. What are the functions of thyroid gland

Short Notes

(7x5=35)

3. Explain the endocrine functions of pancreas
4. What is reflex activity. Explain the components of a simple reflex arc.
5. Explain the process of mechanical and chemical digestion in stomach.
6. Explain the regulation of respiration.
7. Draw a neat labelled diagram of a nephron.
8. What are the functions of oxytocin, ADH and parathyroid hormone.
9. Write a short note on oogenesis.

Answer Briefly

(10x2=20)

10. Define action potential.
11. What is the role of salivary amylase.
12. What are the three layers of spinal meninges.
13. Name the four layers of the wall of gastrointestinal tract.
14. List out the major role of ATP.
15. Define tidal volume.
16. What is juxtaglomerular apparatus.
17. Write any one function of ureters and urinary bladder.
18. What is Turner's syndrome.
19. Define fertilization.

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Second Semester B. Pharm Degree Supplementary Examinations
April 2024
Pharmaceutical Organic Chemistry I
(Common for 2017 and 2022 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. Describe in detail about the Cannizzaro reaction and aldol condensation reaction.
2. Elaborate Markownikoff's and anti- Markownikoff's orientation with suitable examples.

Short Notes

(7x5=35)

3. Write the structure and uses of cetosteryl alcohol, hexamine, cinnamaldehyde, benzoic acid and methyl salicylate.
4. Explain the acidity of carboxylic acids and the effect of substituents on it.
5. Explain the qualitative tests for aldehyde and ketones.
6. Classify organic compounds. Give the IUPAC nomenclature rules for alkanes.
7. Describe structural isomerism with suitable examples.
8. Describe ozonolysis of alkene with its mechanism.
9. Outline Diel-Alder reaction with suitable examples.

Answer Briefly

(10x2=20)

10. Any two reactions of carboxylic acids.
11. Mention the uses of paraffin.
12. Write the factors affecting SN_1 reactions.
13. Give the chemical structure and uses of vanillin and paraldehyde.
14. Mention four aliphatic carboxylic acids with chemical structures.
15. What are conjugated dienes. Give two examples.
16. Outline any one test distinguishes primary, secondary and tertiary alcohols.
17. Define Perkin condensation.
18. Any one method of preparation of aldehyde.
19. Write the structure and uses of amphetamine and ethanolamine.

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**Second Semester B. Pharm Degree Supplementary Examinations
April 2024
Biochemistry**

(Common for 2017 and 2022 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 nomenclature and IUB classification of enzymes.
2. Discuss the TCA cycle with its energetics.

Short Notes

(7x5=35)

3. Write the structure and functions of DNA.
4. Biosynthesis of pyrimidine nucleotides.
5. Write the biological significance of the catabolism of cholesterol.
6. Explain transamination and deamination with suitable examples.
7. Discuss β -oxidation of saturated fatty acid.
8. Define energy rich compounds and write the structure and functions of Adenosine triphosphate (ATP).
9. Explain role of Hormones in the regulation of blood glucose level.

Answer Briefly

(10x2=20)

10. Diabetes mellitus.
11. Mention isoenzymes and their diagnostic role.
12. Write the inhibitors of protein synthesis.
13. Atherosclerosis.
14. Albinism.
15. Define endergonic and exergonic reactions.
16. Uncouplers of oxidative phosphorylation.
17. Classify carbohydrates.
18. Mention the disorders of urea cycle.
19. DNA replication.

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**Second Semester B. Pharm Degree Supplementary Examinations
April 2024**

**Pathophysiology
(Common for 2017 and 2022 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. Describe the pathophysiology, clinical manifestations and complications of acute renal failure.
2. Explain the salient features of genetic disorders caused by errors in the haemoglobin.

Short Notes

(7x5=35)

3. Pathogenesis of atherosclerosis
4. Disorders of sex hormones
5. Etiology and pathogenesis of peptic ulcer
6. Pathophysiology of alcoholic liver disease
7. Cancer invasion and metastasis
8. Urinary tract infections
9. Pathophysiology of HIV infection

Answer Briefly

(10x2=20)

10. Alkalosis
11. Metaplasia
12. Myocardial infarction
13. Types of epilepsy
14. Clinical manifestations of Schizophrenia
15. Types of Diabetes mellitus
16. Clinical presentations of Tuberculosis
17. Crohn's disease
18. Cardinal signs of Inflammation
19. Hepatitis B
