



Reg. No.....

econd Semester B. Pharm Degree Regular/Supplementary
Examinations June 2022

### 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. Define digestion. Describe in detail the process of digestion.
- 2. Explain the physiology of urine formation

**Short Notes** 

(7x5=35)

- 3. Cerebellum
- 4. Role of ATP
- 5. Anatomy and functions of liver
- 6. Cellular respiration
- 7. Pituitary hormones and their functions
- 8. Oogenesis
- 9. Protein translation

#### **Answer Briefly**

(10x2=20)

- 10. Ventricles of brain
- 11. Respiratory acidosis and alkalosis
- 12. Regulation of heat loss
- 13. Constituents of urine
- 14. Structure of villi
- 15. Anatomy of bronchial tract
- 16. Glucagon
- 17. Urinary bladder
- 18. Estrogen
- 19. Sex linked inheritance

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QP Code: 222006

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### Pharmaceutical Organic Chemistry I

(2017 Scheme)

Time: 3 Hours

Max. Marks: 75

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#### Essays

(2x10=20)

- 1. What is Cannizzaro reaction and Benzoin condensation reaction. Explain with mechanism.
- 2. Compare SN<sub>1</sub> reaction and SN<sub>2</sub> reaction. Explain the reactivity of reactants in SN<sub>1</sub> reaction and rearrangement of carbocations

**Short Notes** 

(7x5=35)

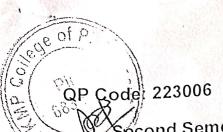
- 3. Explain inductive effect with a suitable example.
- 4. Explain Anti-Markownikoff's orientation.
- 5. Explain the electrophilic addition reactions of alkenes.
- 6. Discuss SP<sup>3</sup> hybridization in alkanes.
- 7. Explain the factors affecting  $E_1$  and  $E_2$  reactions.
- 8. Give the structure and uses of lactic acid and glycerol
- 9. Three general methods of preparation of alcohols.

### Answer Briefly

(10x2=20)

- 10. Mention the IUPAC name of CH<sub>2</sub>=CH-CH<sub>2</sub>- CH<sub>2</sub>-CH=CH<sub>2</sub>
- 11. Explain positional isomerism with an example.
- 12. Give the structure of acetic acid and propylene glycol.
- 13. What are the uses of cetosteryl alcohol and iodoform
- 14. Why formaldehyde doesn't undergo aldol condensation.
- 15. Explain Saytzeff's rule.
- 16. Give the structures of amphetamine and benzaldehyde.
- 17. Give two qualitative tests for amines.
- 18. Structural formula for 2,3-dimethylbutane.
- 19. Electromeric effect.

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### **Biochemistry**

## (2017 Scheme)

Time: 3 Hours Max. Marks: 75

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- Answer all parts of a single question together Leave sufficient space between answers
- Draw diagrams wherever necessary

Essays

(2x10=20)

- 1. Explain HMP Shunt with its significance.
- 2. Describe the biosynthesis of purine nucleotides.

**Short Notes** 

(7x5=35)

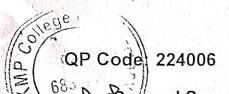
- 3. Discuss about urea cycle and its disorders.
  - 4. List the various metabolic disorders of phenyl alanine. Explain Albinism.
  - 5. Explain briefly the structure of RNA. Enumerate its functions.
  - 6. Synthesis and significance of melatonin.
  - 7. Explain briefly the utilization of Ketone bodies.
  - 8. Summarize the process of breakdown of Heme.
  - 9. Explain IUB classification of enzyme.

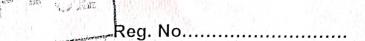
**Answer Briefly** 

(10x2=20)

- 10. Free energy.
- 11. Oxidative phosphorylation.
- 12. Jaundice.
- 13. Inhibitors of protein synthesis.
- 14. Biochemical functions of coenzymes.
- 15. Decarboxylation reaction of amino acid metabolism.
- 16. Glycogen storage diseases.
- 17. Hormonal regulation of blood glucose level.
- 18. Significance of ATP.
- 19. Exergonic reaction.

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### Pathophysiology

# (2017 Scheme)

Time: 3 Hours

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- Answer all parts of a single question together Leave sufficient space between answers

• Draw diagrams wherever necessary

Essays

(2x10=20)

- 1. Explain in detail about etiology, pathogenesis and pathophysiology of cancer.
- 2. Write the pathophysiology, signs, symptoms and etiology of Congestive Heart Failure

Short Notes (7x5=35)

- 3. Differentiate between acute and chronic renal failure
- 4. Pathophysiology of meningitis
- 5. Classification and Pathogenesis of epilepsy
- 6. Write in brief about disorders of sex hormones
- 7. Clinical manifestation and pathophysiology of chronic obstructive airway disease
- 8. Mediators of Inflammation
- 9. Adaptive changes of Cellular injury

### Answer Briefly

(10x2=20)

- 10. Define Homeostasis
- 11. Causative organism and mode of transmission of Tuberculosis
- 12. Risk factors for Stroke
- 13. Megaloblastic anemia
- 14. Write the causative organism for AIDS & Leprosy
- 15. Define Rheumatoid Arthritis
- 16. Atherosclerosis
- 17. Etiology of Parkinsons Disease
- 18. Signs and symptoms of peptic ulcer
- 19. Mode of transmission and causative organism for typhoid

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