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Total Number of Pages : 02

B.Pharm  
BP201T

2<sup>nd</sup> Semester Regular / Back Examination: 2021-22

HUMAN ANATOMY AND PHYSIOLOGY -II

BRANCH(S): B.Pharma

Time : 3 Hour

Max Marks: 75

Q.Code: J433

Answer Question No.1 (Part-1) which is compulsory, any eight from Part-II and any two from Part-III.

The figures in the right hand margin indicate marks.

Part-I

Q1 Answer the following questions :

(2 × 10)

- Define synapse.
- What is Peptic ulcer?
- Define vital capacity?
- Write the composition of gastric juice.
- What is Cushing's syndrome?
- Write the disorders due to hyper and hypo secretions of growth hormone.
- Describe the anatomy and physiology of Fallopian tubes.
- Write the anatomy and physiology of Medulla oblongata.
- Write a note on cerebrospinal fluid.
- Write the functions of pineal gland.

Part-II

Q2 Focused-Short Answer Type Questions- (Answer Any Seven)

(5 × 7)

- Write the location, structure and functions of liver.
- Write a note on digestion and absorption of nutrients in GIT.
- Write a note on meninges of brain.
- Write short notes on Renin Angiotensin system.
- Write a note on process of urine formation.
- Write detail note on pancreatic hormones.
- Describe the hormones of thyroid gland and their functions.
- What is Spermatogenesis?
- Write note on physiology of menstruation.

Part-III

Q3 Long Answer Type Questions (Answer Any Two)

Define CNS.

Write different parts of brain with labeled diagram.

Add a note on structure and functions of cerebrum.

(2)  
(4)  
(4)



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B.Pharm  
BP202T

2<sup>nd</sup> Semester Regular / Back Examination: 2021-22

PHARMACEUTICAL ORGANIC CHEMISTRY - I

BRANCH(S): B.Pharma

Time : 3 Hour

Max Marks : 75

Q.Code : J506

Answer Question No.1 (Part-1) which is compulsory, any eight from Part-II and any two from Part-III.

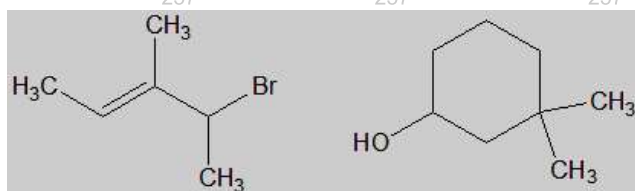
The figures in the right hand margin indicate marks.

Part-I

Q1 Answer the following questions :

(2 × 10)

- How will you separate amines by Hinsberg method?
- Define electrophile and nucleophile with examples.
- Write the structure and uses of any one dicarboxylic acid.
- Give one qualitative test to differentiate among primary, secondary and tertiary alcohols.
- Write the IUPAC name for the following structures.



- What is a carbocation? Give one example.
- Write any one nucleophilic addition reactions of aldehydes followed by loss of water molecule.
- Write the increasing order of acidity of the following:  
 $\text{ClCH}_2\text{COOH}$ ,  $\text{CH}_3\text{COOH}$ ,  $\text{Cl}_2\text{CHCOOH}$ ,  $\text{FCH}_2\text{COOH}$
- Why is alpha hydrogen acidic in carbonyls?
- More the substituted alkene, faster it is formed. Why?

Part-II

Q2 Focused-Short Answer Type Questions- (Answer Any Seven)

(5 × 7)

- Explain the basicity of aliphatic amines with special emphasis on effect of substituent on their basicity.
- What are conjugated dienes? Write a note on stability of conjugated dienes.
- Classify alcohols with examples. Write the oxidation and dehydration reactions of alcohol.
- Explain the mechanism involved in Aldol condensation reaction with examples.
- Discuss the mechanism involved in halogenation of alkanes with special emphasis on chlorination of propane.

- f) Write the structure of iodoform, chlorobutanol, vanillin, dimethyl phthalate and ethanolamine.
- g) Differentiate between Markovnikov's and Anti-Markovnikov's addition of alkenes.
- h) Classify alkyl halides with examples. Write any two methods of preparation of alkyl halides.
- i) Write the uses of acetyl salicylic acid, amphetamine, paraldehyde, glycerol and paraffins.

### Part-III

#### Long Answer Type Questions (Answer Any Two)

- Q3** Write any three methods of preparation of aliphatic carboxylic acids. Explain the acidity of carboxylic acids with emphasis on effect of substituent on their acidity. **(10)**
- Q4** Differentiate between SN1 and SN2 reactions. Discuss the factors affecting the SN1 and SN2 reactions. **(10)**
- Q5** Define 'isomerism'. Explain various types of structural isomerism with relevant examples. **(10)**
- Q6** Discuss the general methods of preparation of carbonyls. Explain the qualitative tests used to detect carbonyl compounds. **(10)**

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**B. PHARM.  
BP203T**

**2<sup>nd</sup> Semester Regular / Back Examination: 2021-22**

**BIOCHEMISTRY**

**PHARMACY**

**Time : 3 Hour**

**Max Marks : 75**

**Q. Code: J585**

**Answer Question No.1 (Part-1) which is compulsory, any seven from Part-II and any two from Part-III.**

**The figures in the right hand margin indicate marks.**

**Part-I**

**Q1 Answer the following questions: (2 x 10)**

- Define free energy and give some examples of energy rich compounds.
- What is ketosis? Write down the normal ketone body level.
- Write down one purine and pyrimidine base with structure.
- Define Transamination and Deamination.
- What is enzyme induction & repression? Give examples.
- What are essential fatty acids? Give examples.
- Define gluconeogenesis. Name the key enzyme of gluconeogenesis.
- Distinguish between DNA and RNA.
- What are the inhibitors of oxidative phosphorylation?
- Name the regulatory enzymes of TCA cycle.

**Part-II**

**Q2 Focused-Short Answer Type Questions- (Answer Any Seven) (5 x 7)**

- Write down the oxidative phase of HMP pathway and mention the significance of HMP pathway.
- Describe the process of Transcription.
- Discuss the symptom and treatment of Hyperuricemia and Gout.
- Describe the Urea cycle with its disorder.
- Write notes on ETC.
- Describe the reactions of  $\beta$ -oxidation of saturated fatty acid and mention the energy produced from Palmitic acid.
- Write down the synthesis and significance of adrenaline.
- What is enzyme inhibition? Classify it with examples.
- What is ATP-ADP cycle? Write down notes on significance of ATP.

**Part-III**

**Q3 Long Answer Type Questions (Answer Any Two) (10)**  
Define carbohydrates. Classify it. Mention the importance of Carbohydrate.  
Write down the properties of monosaccharide.



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B.Pharm  
BP204T

2<sup>nd</sup> Semester Regular / Back Examination: 2021-22

**PATHOPHYSIOLOGY**

**BRANCH(S): B.Pharma**

**Time : 3 Hour**

**Max Marks : 75**

**Q.Code : J669**

**Answer Question No.1 (Part-1) which is compulsory, any seven from Part-II and any two from Part-III.**

**The figures in the right hand margin indicate marks.**

**Part-I**

**Q1 Answer the following questions :**

**(2 × 10)**

- Write various signs of inflammation.
- Differentiate between hypertrophy and hyperplasia with examples.
- Write the relation between hyperuricemia and gout?
- Name the causative agent of Syphilis. Write down its symptoms
- What is the difference between stable angina and unstable angina
- Write down the difference between hyperplasia and neoplasia.
- What is bipolar disorder?
- Define and classify seizure.
- Name the examples of plasma derived mediators of inflammation.
- Define the term chemotaxis.

**Part-II**

**Q2 Focused-Short Answer Type Questions- (Answer Any Seven)**

**(5 × 7)**

- Differentiate between Apoptosis and Necrosis.
- What is CHF? Write the etiopathogenesis of this disease.
- Discuss the pathogenesis and symptoms of peptic ulcer.
- Define pulmonary and non-pulmonary tuberculosis. Briefly discuss its pathogenesis.
- Describe the etiology, clinical features and pathogenesis of bronchial asthma.
- Define and classify tumor. Briefly describe about the etiopathogenesis of cancer.
- What is anemia? Write down the causes and symptoms of megaloblastic anemia.
- Write the difference between atherosclerosis and arteriosclerosis. Discuss about the etiopathogenesis of atherosclerosis.
- What is hyperbilirubinemia? Write down the pathogenesis and symptoms of jaundice.

**Part-III**

**Q3 Long Answer Type Questions (Answer Any Two)**

Explain various etiology of cell injury and describe pathogenesis of reversible cell injury due to hypoxia and Ischemia.

**(10)**

**Q4** Discuss about the Cellular events of inflammation and chemical mediators of inflammation. Write a short outline on process of repair.

**(10)**

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