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B. PHARM.
BP203T

2nd Semester Regular / Back Examination: 2021-22

BIOCHEMISTRY

PHARMACY

Time : 3 Hour

Max Marks : 75

Q. Code: J585

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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:

- 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.

(2 x 10)

Part-II

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

- 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 β -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.

(5 x 7)

Part-III

Q3 Long Answer Type Questions (Answer Any Two)

- Define carbohydrates. Classify it. Mention the importance of Carbohydrate.
- Write down the properties of monosaccharide.

(10)

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- Q4 Define enzyme, classify it with examples. Write down the therapeutic and diagnostic applications of enzymes and isoenzymes. (10)
- Q5 Discuss detail about E. M. Pathway with energetic. (10)
- Q6 Write down the denovo synthesis of fatty acids. (10)

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B.Pharm
BP204T

2nd 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.

Q1

Answer the following questions :

- 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-I

(2 × 10)

Q2

Part-II
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

Long Answer Type Questions (Answer Any Two)

Q3

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)



Q5 Define Rheumatoid arthritis. Discuss the etiology, pathogenesis, sign and symptoms of Rheumatoid arthritis. (10)

Q6 Define and classify Diabetes mellitus. Describe the pathogenesis, symptoms and complications of diabetes mellitus. (10)



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B.Pharm
BP202T

2nd 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.

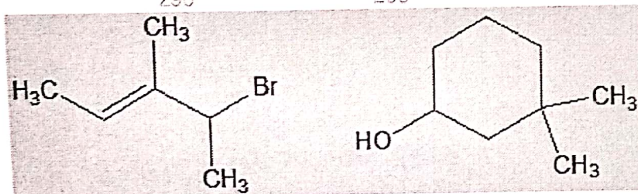
Part-I

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:
 ClCH_2COOH , CH_3COOH , Cl_2CHCOOH , FCH_2COOH
- 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. (1)
- Q4 Differentiate between SN1 and SN2 reactions. Discuss the factors affecting the SN1 and SN2 reactions. (1)
- Q5 Define 'isomerism'. Explain various types of structural isomerism with relevant examples. (1)
- Q6 Discuss the general methods of preparation of carbonyls. Explain the qualitative tests used to detect carbonyl compounds. (1)

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B.Pharm
BP201T

2nd 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.

- Q1** **Part-I** (2 × 10)
- Answer the following questions :
- 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.

- Q2** **Part-II** (5 × 7)
- Focused-Short Answer Type Questions- (Answer Any Seven)
- 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.

- Q3** **Part-III**
- 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)

Q4 290 With neat and labeled diagram describe different parts of digestive system. 290
Write the mechanism of acid production and regulation. 290

Q5 Define hormone.
Write in detail about hormones of the pituitary gland.
Write a note on feedback mechanism with an example.

Q6 290 Describe the respiratory system with neat and labeled diagram. 290
Explain the mechanism and regulation of respiration. 290 290

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B.Pharm
15PH201

2nd Semester Back Examination: 2021-22

PHARM ANALYSIS - I

BRANCH(S): B.Pharma

Time : 3 Hour

Max Marks : 100

Q.Code : J434

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.

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Part-I

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(2 × 10)

Q1

Answer the following questions :

- Define primary standard with example.
- Define buffer solution with examples.
- What is oxidation, give one example.
- Write a note on common ion effect.
- Expand the term EDTA.
- Differentiate precision and accuracy.
- What is iodometry.
- Define indicators with examples.
- Explain hydrolysis of salts.
- Give one example of precipitation titration.

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Part-II

Q2

Only Focused-Short Answer Type Questions- (Answer Any Eight out of Twelve) (6 × 8)

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- Explain the concept of Redox titration with example.
- Write a brief note on the theory of indicator.
- Write the steps involved in Mohr's precipitation titration.
- Explain briefly about Argentometric titration.
- Define Lewis acid and Lewis base.
- Write the various neutralisation curve in acid-base titration.
- Briefly explain about primary standard.
- Derive Handerson-Hasselbach equation and its applications.
- Write the principle of acidimetry and alkalimetry.
- What are different types of complexometric titrations?
- How acids, temperature and solvent effect upon the solubility of a precipitate.
- Name the solvents used in NAT.

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Part-III

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Only Long Answer Type Questions (Answer Any Two out of Four)

Q3

Explain, how the end point in the complexometry is determined.

Q4

Explain the determination of halogens and thiocyanates by Volhard's method.

Q5

Explain the solvent, titrant and indicators used in alkalimetry in NAT.

Q6

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Write the types of error. How errors are minimized? Write the selection of sample for different pharmaceutical dosage forms.

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