

February 2009

[KU 706]

Sub. Code: 4181

SECOND B.PHARM. DEGREE EXAMINATION

(ReRevised Regulations)

Candidates Admitted upto 2003-04

Paper I – BIO-CHEMISTRY

Q.P. Code : 564181

Time : Three hours

Maximum : 90 marks

I. Essay Questions : Answer any TWO questions (2 x 20 = 40)

1. Describe in detail about the citric acid cycle with energetics and its regulation. **(20)**
2. Explain briefly about the Biosynthesis and degradation of Tyrosine, phenylalanine and its metabolic disorders. **(20)**
3. **a)** Enumerate the various types of Enzyme inhibition with suitable example. **(10)**
b) Explain in detail about the digestion and absorption of carbohydrates. **(10)**

II. Write Short Notes : Answer any EIGHT questions (8 x 5 = 40)

1. Explain about mucopolysaccharides with examples.
2. Write the process of β – oxidation of palmitic acid with energetics.
3. Write about non-protein nitrogenous substances with examples.
4. Write the sources, chemistry and biochemical role of vitamin A.
5. Define co-enzymes and explain any two co-enzymes with biochemical function.
6. What is meant by rate regulating step in metabolism and state that regulation step in glycolysis?
7. Explain about liver function test, describe in detail about vanderberg reaction with its significance.
8. Discuss the structure of DNA.
9. Give an account of the structure and function of immunoglobulins.
10. Write about the general mechanism of action of peptide hormones.

III. Short Answers: Answer any FIVE questions (5 x 2 = 10)

1. What are the different mechanisms of transport across the membrane?
2. What are the factors that regulate plasma calcium level?
3. What are the functions of vitamin K?
4. What is meant by co-enzyme? Give examples.
5. Explain about ketogenesis.
6. Write the normal constituents of urine.
7. Differentiate reducing sugars and non-reducing sugars.

August 2009

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I. Essay Questions : Answer any TWO questions (2 x 20 = 40)

1. a) What are carbohydrates? Classify them, Describe in detail about homopolysachrides.
b) Discuss the TCA cycle with its energetics.
2. a) What are enzymes? Classify them. Explain the various factors affecting enzyme action.
b) Write in detail about the sources, chemistry, biochemical role and deficiency manifestations of vitamin – A.
3. a) Explain the biosynthesis of pyrimidine nucleotides.
b) Discuss the metabolism of sodium.

II. Write Short Notes : Answer any EIGHT questions (8 x 5 = 40)

1. Describe the properties of fats.
2. Role of Insulin.
3. Structure of immunoglobulin.
4. Biosynthesis of ketone bodies.
5. Metabolism of phenylalanine.
6. Co-enzymes. cc
7. Structure of t.RNA.
8. Mode of action of drugs.
9. Transport across bio membranes.
10. Urea cycle.

III. Short Answers: Answer any FIVE questions (5 x 2 = 10)

1. Name the essential fatty acids.
2. Significance of HMP shunt pathway.
3. Name the purine bases with their structures.
4. Carr – Price test.
5. Define Iodine value. Give its significance.
6. Write any two enzymes of clinical importance.
7. Deficiency diseases of thiamine.
