JHARKHAND Rai University
RANCHI
ACCREDITED BY NAAC

End Semester/Reappear (Semester II) Examination July 2022

Programme: B. Pharm **Full Marks: 75**

Subject: Biochemistry **Time: 3 Hrs**

Subject Code: BP203T

Enrollment No: _____

Section I

1. **Objective type questions. Answer all questions.** **20 x 1 = 20**

i. Building blocks of protein is

a) Amino acids b) Glucose c) Glycerol d) RNA

ii. Full form of RNA is

a) Reverse nucleic acid b) Ribonucleic acid

c) Deoxyribo nucleic acid d) Reduced nucleic acid

iii. All are lipids except one

a) Lecithins b) Glyceryl monostearate c) Galactose d) Cholesterol

iv. Autotrophs produce ATP via photosynthesis is an example of

a) Saponification b) Antagonism c) Synergism d) Bioenergetics

v. Glycolysis occurs in which part of the cell?

a) Cytosol b) Lysosome c) Mitochondria d) Golgi apparatus

vi. The total number of ATP produced in citric acid cycle is

a) 8 b) 12 c) 10 d)36

vii. The immediate source of energy for muscular contraction is

a) Creatine phosphate b) Glucose c) ATP d) Ketone body

viii. The normal fasting value of plasma glucose is

a) 200 mg/dl b) 140 mg/dl c) 126 mg/dl d) below 110 mg/dl

ix. Example of a saturated fatty acid is

a) Palmitic acid b) Myristoleic acid c) Oleic acid d) Linoleic acid

x. In the De novo synthesis of fatty acids the coenzyme required for CO_2 fixationin acetyl CoA carboxylase is

a) Retinol b) Biotin c) Ascorbic acid d) Calciferol

xi. Deamination is the loss of amino group from the amino acids in the form of

a) NH b) NH_2 c) NH_3 d) NH_4

xii. Creatinine is formed from following amino acids except

a) Glycine b) Methionine c) Arginine d) Asparagine

xiii. Which one of the following is not a nitrogenous base?

a) Guanosine b) Adenine c) Cytosine d) Thymine

xiv. When uric acid accumulates in the tissues in excessive amounts, the disorder is termed as

a) Hyperuricaemia b) Gout c) Arthritis d) Osteoarthritis

xv. Genetic information carried by the cell is called

a) Gene b) Chromosome c) Genome d) Anticodon

xvi. The termination codons which stop signals for protein synthesis are

a) UAA,AUG,UGA b) UAA,AAG,UGA

c) UAA,GGU,UGA d) UAA,UAG,UGA

xvii. Proteins that catalyse the chemical reactions are known as

a) Enzymes b) Vitamins c) Catalyst d) Accelerator

xviii. The lock and key model of formation of an enzyme-substrate complex was proposed by

a) Charles Wurtz b) Emil Fischer c) D.Koshland d) Louis Pasteur

xix. At the physiological pH the DNA molecules are

a) Neutral b) Amphipathic c) Negatively charged d) Positively charged

xx. All are derived from cholesterol except

a) Bile salt b) Steroid c) Vitamin D d) Bile pigment

Section II

2. **Short Answer type questions. Answer any five** **5 x 7 = 35**

a. Define Protein. Briefly discuss their biological role.
b. Give the energetic of glycolysis.
c. Discuss the components and significance of ETC.
d. Give the symptoms and treatment of Atherosclerosis.
e. Discuss catabolism of heme.
f. Write the structural components of nucleic acids.
g. Give the biological role of DNA or RNA.

Section III

Long Answer type questions. Answer any two. **2 x 10 = 20**

3. Discuss the metabolic pathway of synthesis of glucose from pyruvate. Give its significance.
4. Define ketogenesis. Discuss the utilization of ketone bodies. Give its clinical significance.
5. What are enzymes? Give a detailed note on enzyme kinetics.

******