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The Assam Royal Global University, Guwahati

Royal School of Pharmacy

B. Pharmacy II Semester

Semester End Examination, June 2023

Course Title: Biochemistry

Course Code: PHR232C203

Time: 3 Hours

Maximum Marks: 75

Note: Attempt all questions as per instructions given.

The figures in the right-hand margin indicate marks.

Section – A

1. Attempt all questions. (Maximum word limit 50)

2.5 x 8=20

- a. Define amino acid along with its general properties.
- b. Enlist the functions of carbohydrates.
- c. Write about the importance and significance of glycolysis pathway.
- d. Write a note on significance and energetics of Krebs's cycle.
- e. What is ketoacidosis?
- f. What is albinism?
- g. Write about the types of RNA and its functions.
- h. Define and classify coenzyme with example.

Section – B

2. Attempt any one of the following:

13x1

- a. Define and classify lipids with suitable example. Write in detail about functions of lipids and proteins.
- b. Define and classify amino acid with suitable example and chemical structure. Write in detail about functions of essential and non essential amino acid.

3. Attempt any two of the following:

7x2

- a. Write short note on diabetes mellitus.
- b. Explain the citric acid cycle pathway.
- c. Write short note on glycogen storage disease.

4. Attempt any two of the following:

7x2

- a. Explain about atherosclerosis and hypercholesterolemia.
- b. Define bile salts. Outline the bile acid synthesis pathway.
- c. Write a detail note on Urea cycle.

5. Attempt any two of the following:

7x2

- a. Explain the biosynthetic pathway of pyrimidine nucleotide.
- b. Explain about the steps involved in purine biosynthesis.
- c. Define enzymes. Discuss briefly about enzyme kinetics.