

**DEPARTMENT OF NUTRITION
PRABHAT KUMAR COLLEGE, CONTAI
Question Paper**

**B.Sc. Honours Examination 2020
(Under CBCS Pattern)
Semester - II
Subject: NUTRITION
Paper: CC – 3 (T + P)
(Nutritional Biophysics & Biochemistry)**

*Candidates are required to give their answer in their own words as far as practicable.
Questions are of equal value*

Answer any **one question** [within 250 words] from each Part.

PART – A: Nutritional Biophysics & Biochemistry (Theory)

1. Write the second law of the thermodynamic. What are the applications of thermodynamics? What is thermodynamics?
2. What is acid & base? What happens when acid reacts with base? What is the pH of acid & base?
3. Define enzyme. Write the classifications of enzyme with proper example.
4. What is K_m ? Write the significance of K_m .
5. What is RNA polymerase? What is genetic code? Write the short notes on DNA Replication.
6. Define biochemistry. What are the interrelationship between biochemistry & nutrition?
7. Write the importance of biophysics in Nutrition.
8. Describe Facilitated Diffusion. Write down the mechanism of $Na^+ - K^+$ ATPase Transport System. What is Aquaporin?
9. Describe the steps of Ketone body formation. How it is utilized? What is Ketosis?
10. How Carbamoyl Phosphate is produced? Describe the steps of Urea Cycle. What is FAS Complex?

PART – B: Nutritional Biophysics & Biochemistry (Practical)

1. What is Electrophoresis? Mention its types. Describe the Principles of Electrophoresis.
2. What is Dialysis? Mention its principle. Describe different types of dialysis process.
3. What is Urease & Salivary Amylase? Mention different properties of Urease & Salivary Amylase.
4. How to determine strength of $KMnO_4$ using primary standard?

Answer script should be mailed to the following email address:

exam002h@gmail.com