



'समानो मन्त्रः समितिः समानी'

UNIVERSITY OF NORTH BENGAL

B.Sc. Honours 3rd Semester Examination, 2022

GE2-P1-FOOD TECHNOLOGY

**CHEMISTRY, FUNDAMENTALS OF NUTRITION AND MICROBIOLOGY IN
FOOD TECHNOLOGY**

Time Allotted: 2 Hours

Full Marks: 40

1. Answer any *five* questions: 1×5 = 5
- (a) Define carbohydrate.
 - (b) Give an example of essential amino acids.
 - (c) What do you mean by peptide bond?
 - (d) What is pasteurization?
 - (e) What is a starter culture?
 - (f) Who discovered canning?
 - (g) Define food spoilage.
2. Answer any *three* questions: 5×3 = 15
- (a) What are disaccharides? Name the compounds obtained by hydrolysis of lactose and sucrose. Explain the term mutarotation. 1+2+2
 - (b) Give an example of sulphur containing amino acid. What do you mean by denaturation of protein? What are the agents of denaturation of proteins? 1+2+2
 - (c) Write a note on rancidity.
 - (d) Discuss the historical developments in the field of food technology.
 - (e) Write short note on food preservation by chemicals.
3. Answer any *two* questions: 10×2 = 20
- (a) What are lipids? How are they classified? Explain what do you mean by saponification? What is iodine value? 1+4+3+2
 - (b) Draw all the possible structure of glucose. Explain how protein can be estimated? What is isoelectric point? 5+4+1
 - (c) Discuss the microbiological techniques applied in food industry.
 - (d) Write short notes on: (i) spoilage of milk and (ii) spoilage of meat. 5+5

—x—