



'সমানো মন্ত্র: সমিতি: সমানী'

UNIVERSITY OF NORTH BENGAL

B.Sc. Honours Part-III Examination, 2022

MICROBIOLOGY

PAPER-VIII

Time Allotted: 4 Hours

Full Marks: 80

The figures in the margin indicate full marks.

1. Answer the following: 1×16 = 16
- (a) Define probiotics.
 - (b) What are biosurfactants?
 - (c) What do you mean by redox potential?
 - (d) Name one organism involved in gold leaching.
 - (e) Define z-value.
 - (f) Name the organism involved in preparation of roquefort cheese.
 - (g) Name the starter culture used in Swiss cheese.
 - (h) What is tyndallization?
 - (i) Name one causative agent of fish spoilage.
 - (j) Define pascalization.
 - (k) What is sparger?
 - (l) What is a umami flavour?
 - (m) Define water activity.
 - (n) Write the Gram-nature of LAB.
 - (o) What is lactose-intolerance?
 - (p) Define HACCP.
2. Answer any **four** of the following: 8×4 = 32
- (a) Discuss in detail, the spoilage of meat and meat products. 8
 - (b) Describe the mechanism of gold bioleaching. 8
 - (c) Give a concise account on the production of microbial flavour. 8
 - (d) Describe the role of an organic acid in food preservation. 8
 - (e) With the help of flowchart, describe the process of idli production. 8
 - (f) Describe the health promoting effect of LAB. 8

3. Answer any *two* of the following: 16×2 = 32
- (a) Discuss in detail, the different methods used for the industrial production of vinegar. 16
- (b) Discuss the mechanisms of food preservation using irradiation and high temperature. 8+8 = 16
- (c) Describe in detail, the process involved in industrial production of benzyl penicillin. 16
- (d) Describe the extrinsic factors that influence the growth of an organism in a given food products. 16

—×—