

[This question paper contains 4 printed pages.]

**Your Roll No.....**

**Sr. No. of Question Paper : 1042**

D

Unique Paper Code : 2202311102

Name of the Paper : Principles of Food Science

Name of the Course : **B.Sc. (Hons) Food Technology (NEP-UGCF-2022)**

Semester : I, CORE

Duration : 3 Hours

**Maximum Marks : 90**

### **Instructions for Candidates**

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. **Question no. 1** is compulsory.
3. Attempt **six** questions in all.
4. **All questions** carry equal marks.

P.T.O.

1. Explain the following briefly (Attempt Any Ten)  
(1.5×10=15)

- (a) Food foam
- (b) Facultative Microorganisms
- (c) CIP
- (d) Logarithmic growth phase
- (e) Threshold concentration.
- (f) Specific Gravity
- (g) Laminates in Packaging
- (h) Syneresis of Gel
- (i) Layout of Sensory Evaluation Lab
- (j) Triangle test
- (k) Viscosity

2. Differentiate between **any three** the following

- (a) Sols and Gels

- (b) Descriptive and discriminatory test
  - (c) Primary and secondary packaging
  - (d) COD and BOD
  - (e) Trained and Untrained Panel. (5×3=15)
3. (a) Discuss the factors affecting foam formation and its stability.
- (b) Discuss briefly the chemical composition of Foods.
- (c) Outline the basic description of Texture of Foods. (5×3=15)
4. (a) List the various intrinsic factors affecting microbial growth. Describe the concept of Water activity and OR Potential. (10)
- (b) "Food is an excellent substrate for growth of Microorganisms". Justify the statement. (5)
5. (a) What is the significance of sensory testing? Explain types of sensory panels in detail. (10)

- (b) Discuss the role and types of Sanitizers used in food industry. (5)
6. (a) What are the objectives of food packaging? Discuss the use and advantages of polyethylene for food packaging. (4+4=8)
- (b) Describe the basic aspects of taste of foods (7)
7. (a) Describe the basic concept and process of Chlorination of Water. (8)
- (b) Explain the importance of Food Texture and discuss the major classification of Texture, profile. (7)
8. Write short notes on **(Any three)**:
- (i) Use of metals in food packaging
- (ii) Application of food emulsions
- (iii) Primary methods of waste water treatment
- (iv) Pectin Gels
- (v) Detergents used in Food Industry (5×3=15)