

- (b) Discuss briefly the four basic taste sensations. (2)
5. (a) Discuss the classification of different types of colloidal suspensions and the role of emulsifying agents in food processing. Illustrate with suitable examples. (5+4=9)
- (b) Enlist the factors affecting the microbial growth along with a neat diagram of bacterial growth curve. (5+4=9)
6. (a) What is breakpoint chlorination? What are the properties of waste water and their significance in the food applications? (4+5=8)
- (b) Discuss the role of packaging in food safety. List the various types of packaging material used in packaging food products along with their properties and suitable examples of any two of them. (4+3+3=10)
7. Describe with by the help of a schematic well labelled diagram only : (6×3=18)
- (a) Trickling Filters
- (b) Microbial Growth curve
- (c) Flow chart for CIP Cleaning of Milk Tankers

(500)

[This question paper contains 4 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 1378

I

Unique Paper Code : 2202031102

Name of the Paper : Principles of Food Science

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

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. Attempt any **five** questions in all.
3. Question No. 1 is compulsory.
4. **All** questions carry equal marks.

P.T.O.

1. Answer the following question briefly (**Any 6**)

(3×6=18)

- (a) Triangle test
- (b) Hedonic scale
- (c) COD
- (d) LAG phase
- (e) Foam
- (f) Paper packaging
- (g) Texture
- (h) Viscosity

2. (a) Discuss the tests used for sensory evaluation with suitable examples. Describe the theories of odour classification. (5+5=10)

(b) Define and discuss the importance of BOD. Discuss the primary methods of waste water treatment in detail. (4+4=8)

3. (a) Differentiate between : (**Any Four**) (4×4=16)

- (i) Sols and Gels

(ii) Sanitizers and detergents

(iii) Rigid and flexible packaging

(iv) Descriptive and Discriminative tests

(v) Intrinsic and Extrinsic factors affecting Microbial growth

(b) Discuss the types of Sensory panels briefly. (2)

4. (a) Justify the following statements (**Any Four**) :

(4×4=16)

(i) Hardness of water is used to determine it's quality.

(ii) Packaging improves the shelf life of the product.

(iii) Olfaction has better sensitivity than gustation.

(iv) Syneresis is an undesirable property of gel.

(v) CIP is an important process in food industry.

(vi) Quality of Pectin gels is affected by several factors.