

[This question paper contains 2 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 7316

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Unique Paper Code : 2203030018

Name of the Paper : Food Plant Design Sanitation

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

Semester : VIII, DSE

Duration : 2 Hours

Maximum Marks : 60

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Attempt total **four** questions.
3. Question **1** is compulsory.
4. **All** questions carry equal marks.
5. Part of the questions to be attempted together.

1. Answer briefly : (**any five**) (3×5=15)

(i) Controlled atmosphere storage

(ii) Kick's Law

(iii) Personal Hygiene

(iv) Food Hygiene

(v) CIP

(vi) Any one filtration equipment

2. (a) Describe the working principle of any Centrifugal equipment used in food processing. (8)

P.T.O.

- (b) Discuss the importance of cold chain in international trade of perishables. (7)
3. (a) Explain the importance of illumination and ventilation in food plant design and operation. (10)
- (b) Write a short note on the economics of warehouse storage. (5)
4. Differentiate between the following, (**any three**) : (5×3=15)
- (a) Aerobic and anaerobic wastewater treatment
- (b) BOD and COD
- (c) Product layout and process layout
- (d) Sanitizers and Detergents
5. (a) A cold storage room stores 1500 kg of mangoes. The fruit is cooled from 30°C to 10°C. Specific heat of mango = 3.5 kJ/kg°C. Calculate the heat that must be removed during cooling. (5)
- (b) What is a sanitation schedule? Why is it important in food plants? (5)
- (c) Explain the physical and chemical treatment process used in food industry wastewater treatment plan. (5)