



Name :

Roll No. :

Invigilator's Signature :

CS/B.Tech (FT)/SEM-7/FT-702/2010-11

2010-11

FOOD ADDITIVES & POST-PROCESS OPERATIONS

Time Allotted : 3 Hours

Full Marks : 70

The figures in the margin indicate full marks.

*Candidates are required to give their answers in their own words
as far as practicable.*

GROUP – A

(Multiple Choice Type Questions)

1. Choose the correct alternatives for the following : $10 \times 1 = 10$

i) Polyphenols are used as

- | | |
|----------------|----------------------|
| a) antioxidant | b) chelating agent |
| c) humectants | d) buffering agents. |

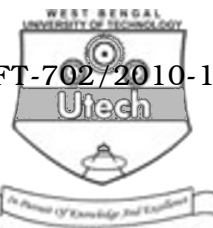
ii) Example of a firming agent is

- | | |
|------------------|----------------------|
| a) alum | b) calcium carbonate |
| c) both of these | d) none of these. |

iii) "Nutra sweet" is the brand name of

- | | |
|-------------------|---------------|
| a) Glycyrrhizins | b) Saccharin |
| c) Acesulfame – K | d) Aspartame. |

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GROUP – B

(Short Answer Type Questions)

Answer any *three* of the following. $3 \times 5 = 15$

2. What do you know about 'Low Calorie Sweeteners' ? Why we use them ? Describe any two. $1 + 1 + 3$
3. Write a short note on leavening agents. 5
4. What is CMC ? Write a few words about synthetic emulsifiers. $1 + 4$
5. What types of preservatives are used in meat preservation ? Illustrate. 5
6. Differentiate with illustration between natural and artificial antioxidants. Give examples of some antioxidants commonly used in foods. 5

GROUP – C

(Long Answer Type Questions)

Answer any *three* of the following. $3 \times 15 = 45$

7. What is cocoa butter ? What are their different forms ? Describe how these forms are obtained during the tempering of chocolate. How can you measure the degree of temper in case of chocolate production ? $1 + 2 + 5 + 7$

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8. What are certified and uncertified food colours ? Briefly discuss about the different types of food colour with their proper application in food industries. Use of EDTA in citrus fruit based beverages is a common practice. Why ? 15
9. How are food emulsifiers characterised ? What are the active reagents present in egg yolk which stabilize a mayonnaise emulsion ? Explain clearly how mayonnaise emulsion is stabilized by egg yolk. Name at least two emulsifiers which are commonly used in food industries. 15
10. What qualitative improvements can be imparted to a processed food by enrobing it ? Name the different methods and materials used to coat a processed food. Describe briefly how a food product can be coated with chocolate with the help of a curtain type of enrober ? 15
11. Write short notes on any *three* of the following : 3 × 5
- a) GM food and GRAS
 - b) Ropiness of bread
 - c) Syrup and candy
 - d) EDTA.
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