	Utech
Name:	
Roll No. :	A Descript South Control
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)

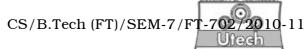
- 1. Choose the correct alternatives for the following: $10 \times 1 = 10$
 - i) Polyphenols are usd as
 - a) antioxidant
- b) chelating agent
- c) humectants
- d) buffering agents.
- ii) Example of a firming agent is
 - a) alum

- b) calcium carbonate
- c) both of these
- d) none of these.
- iii) "Nutre sweet" is the brand name of
 - a) Glycyrrhizins
- b) Saccharin
- c) Acesulfume K
- d) Aspartame.

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iv)	Mannitol is used in chewing gum at the maximum ke			m at the maximum level
10)	of			
	a)	0.1%	b)	1%
	c)	3%	d)	none of these.
v)	Gelatin is a type of			
	a)	alcohol	b)	starch
	c)	pectin	d)	none of these.
vi)	Glutamate is produced by the fermentation of			
	a)	Bacillus	b)	Streptococcus
	c)	Corynebacterium	d)	none of these.
vii)	PG is usually used for			
	a)	Propylene glycol	b)	Polyvalent metals
	c)	Propyl glycol	d)	none of these.
viii)	Colour of curcuin is normally			
	a)	red	b)	yellow
	c)	blue	d)	none of these.
ix)	Nitr	ites are		
	a)	reducing substances		
	b)	oxidizing substances		
	c)	both oxidizing & reduc	cing s	substances
	d)	none of these.		
x)		rour enhancer MSG (ained from	Mono	osodium Glutamate) is
	a)	Gluten	b)	Seaweed
	c)	Soyabean	d)	All of these.



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.

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- 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.

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 differet types of food colour with their proper application in food industries. Use of EDTA in citrous fruit based beverages is a common practice. Why?
- 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.
- 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?
- 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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