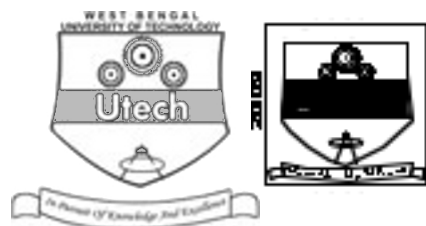


# BAKERY, CONFECTIONERY AND EXTRUDED FOODS ( SEMESTER - 6 )

CS/B.Tech (FT)/SEM-6/FT-603/09



1. ....  
Signature of Invigilator

2. ....  
Signature of the Officer-in-Charge

Reg. No.

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Roll No. of the  
Candidate

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CS/B.Tech (FT)/SEM-6/FT-603/09

ENGINEERING & MANAGEMENT EXAMINATIONS, JUNE - 2009

BAKERY, CONFECTIONERY AND EXTRUDED FOODS ( SEMESTER - 6 )

Time : 3 Hours ]

[ Full Marks : 70

## INSTRUCTIONS TO THE CANDIDATES :

1. This Booklet is a Question-cum-Answer Booklet. The Booklet consists of **32 pages**. The questions of this concerned subject commence from Page No. 3.
2. a) In **Group – A**, Questions are of Multiple Choice type. You have to write the correct choice in the box provided **against each question**.  
b) For **Groups – B & C** you have to answer the questions in the space provided marked 'Answer Sheet'. Questions of **Group – B** are Short answer type. Questions of **Group – C** are Long answer type. Write on both sides of the paper.
3. **Fill in your Roll No. in the box** provided as in your Admit Card before answering the questions.
4. Read the instructions given inside carefully before answering.
5. You should not forget to write the corresponding question numbers while answering.
6. Do not write your name or put any special mark in the booklet that may disclose your identity, which will render you liable to disqualification. Any candidate found copying will be subject to Disciplinary Action under the relevant rules.
7. **Use of Mobile Phone and Programmable Calculator is totally prohibited in the examination hall.**
8. You should return the booklet to the invigilator at the end of the examination and should not take any page of this booklet with you outside the examination hall, **which will lead to disqualification**.
9. Rough work, if necessary is to be done in this booklet only and cross it through.

**No additional sheets are to be used and no loose paper will be provided**

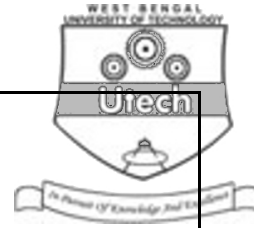
## FOR OFFICE USE / EVALUATION ONLY

Marks Obtained

Group – A								Group – B				Group – C				Total Marks	Examiner's Signature
Question Number																	
Marks Obtained																	

.....  
Head-Examiner/ Co-Ordinator/ Scrutineer

6744 ( 09/06 )



**DO NOT WRITE ON THIS PAGE**



**ENGINEERING & MANAGEMENT EXAMINATIONS, JUNE – 2009**  
**BAKERY, CONFECTIONERY AND EXTRUDED FOODS**  
**SEMESTER - 6**



Time : 3 Hours ]

[ Full Marks : 70

**GROUP – A**

**( Multiple Choice Type Questions )**

1. Choose the correct alternatives for the following : 10 × 1 = 10

i) In case of medium shear extrusion process, the compression ratio of the barrel screw is used

a) 1 : 1

b) 1 : 20

c) 20 : 1

d) 1 : 3.

ii) The phase transition of Food material starts during extrusion

a) in extruder feed hopper

b) in the feed zone

c) in the compression zone

d) at the die head.

iii) In case of expanded puffed product the Expansion Ratio ( ER ) of the product increases with the increase in bulk density of the product ( BD ).

a) True

b) False.

iv) Extrusion process with high specific mechanical energy ( SME ) requirement is

a) High moisture extrusion process

b) Low moisture extrusion process

c) Low moisture and high barrel screw speed extrusion process

d) High moisture and low barrel screw speed extrusion process.



v) The principle of gun puffing is

- a) heating the pasty mass of cereals
- b) heating the dry cereal grains
- c) heating and subsequent cooling of the cereal grains
- d) none of these.

☐

vi) Ammonium bicarbonate is an example of

- a) Leavening acid
- b) Chemical leavening agent
- c) Biological leavening agent
- d) Dough modifier.

☐

vii) The synthetic antioxidant is

- a) BHA
- b) Lycopene
- c) Tocopherol
- d) Ascorbic acid.

☐

viii) The non-nutritive sweetener is

- a) Glucose
- b) Sucrose
- c) Fructose
- d) Saccharine.

☐

ix) The non-nutritive non-certified sweetener is

- a) Aspartame
- b) Saccharine
- c) Stevioside
- d) All of these.

☐

x) The emulsifying agent Lecithin is obtained from

- a) Egg yolk
- b) Milk fat
- c) Wheat flour
- d) All of these.

☐



5

**GROUP – B**

**( Short Answer Type Questions )**

Answer any *three* of the following.



3 ∞ 5 = 15

2. Describe the role of different ingredients used in the manufacture of bakery products. 5
3. What is oven spring ? Discuss about staling of bread. 2 + 3
4. Define compression ratio of an extruder. Describe the screw and barrel design of a single screw extruder. 1 + 4
5. Write down the causes of common defects found in cakes. 5
6. What are the factors you will consider during installation of an oven in a factory ? 5

**GROUP – C**

**( Long Answer Type Questions )**

Answer any *three* of the following.

3 ∞ 15 = 45

7.
  - a) What are the different quality criteria for extruded foods ?
  - b) Why extruders are called versatile Food Processing Equipment ? What is the effect of quality of starch on Expansion Ratio ( *ER* ) and Bulk Density ( *BD* ) of the extrudates ?
  - c) What is texurization of protein through extrusion ? What are the different changes occur in molecular level of protein at the time of extrusion texurization ? 5 + 5 + 5
8.
  - a) What is the role of extruder in the development of nutritional value, enzyme inactivation and sterilization of Foods ?
  - b) Why extrusion cooking is called a HTST process ?
  - c) How lactose to lactulose conversion can be carried out through extrusion process ? Write down the different uses of lactulose. 5 + 5 + 5



9. a) What is the function of Dough mixer in baking industry ? What are the different types of mixers are used in baking industry ?
- b) Write down the flow sheet for extruded expanded snack production plant and highlight the different types of machinery used for the purpose of such production.
10. What is cake icing ? What are the ingredients of icing ? What are the difference between Flat icing, Fluffy icing and combination icing ? What is the difference between bread, cake and biscuit ?
11. a) How cookies are categorized and on what basis ? What are "foam type" cookies ? Name two such cookies and describe method of preparation of any of these. What are the necessary steps to be taken to make quality cookies ?
- b) What are the materials required to make a pie-dough ? Enumerate briefly the steps in the making of a pie-dough. How are the pies classified ? What are the filling usually used for pies ?

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END