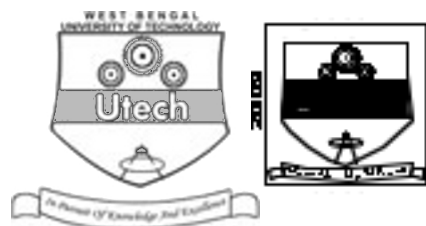


FOOD PROCESS TECHNOLOGY-I (SEMESTER - 4)

CS/B.Tech (FT)/SEM-4/FT-403/09



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-4/FT-403/09

ENGINEERING & MANAGEMENT EXAMINATIONS, JUNE - 2009

FOOD PROCESS TECHNOLOGY-I (SEMESTER - 4)

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

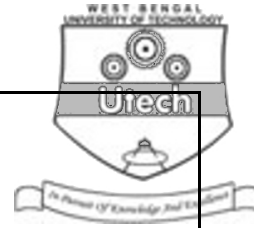
FOR OFFICE USE / EVALUATION ONLY

Marks Obtained

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

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Head-Examiner / Co-Ordinator / Scrutineer

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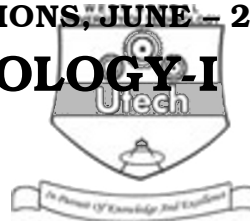


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FOOD PROCESS TECHNOLOGY-I

SEMESTER - 4



Time : 3 Hours]

[Full Marks : 70

GROUP – A

(Multiple Choice Type Questions)

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

i) Parboiling of rice increases

- a) nutrition of rice
- b) yield of rice
- c) resistance of kernel to breakage
- d) all of these.

ii) Germ of corn is

- a) 2.5% of the kernel
- b) 5% of the kernel
- c) 12% of the kernel
- d) 1% of the kernel.

iii) Usually, fruit juices are pasteurized at

- a) 85°C for 25-30 min
- b) 66°C for 5-10 min
- c) 90°C for 10-15 min
- d) 79°C for 15-20 min.

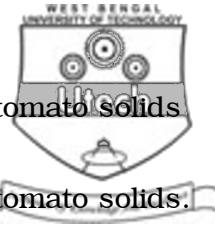
iv) Use of SO₂ for preservation of fruit juices is preferred for

- a) it helps in retaining colour of the beverage for a longer time
- b) being highly soluble in juices it ensures better mixing and hence their preservation
- c) it has a better preserving action against bacterial fermentation.
- d) all of these.



v) Tomato ketch-up should contain not less than

- | | |
|-------------------------|--------------------------|
| a) 15% tomato solids | b) 20% of tomato solids |
| c) 12% of tomato solids | d) 28% of tomato solids. |



vi) A jelly should have

- | | |
|-----------------------|-----------------------|
| a) 50% soluble solids | b) 72% soluble solids |
| c) 80% soluble solids | d) none of these. |

vii) Plant tissue contains

- | | |
|------------------|------------------|
| a) pectin | b) protopectin |
| c) pectinic acid | d) all of these. |

viii) The optimum pH for formation of good jelly is

- | | |
|--------|--------|
| a) 2.7 | b) 3.2 |
| c) 2.5 | d) 3.6 |

ix) Tea leaves contain

- | | |
|------------------|------------------|
| a) Caffeine | b) Tannin |
| c) Essential oil | d) All of these. |

x) Fining agent used for clarification of fruit juice

- | | |
|------------|------------------|
| a) Gelatin | b) White of egg |
| c) Casein | d) All of these. |

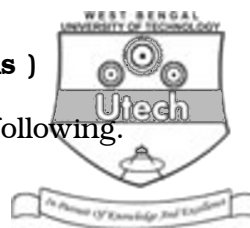


5

GROUP – B

(Short Answer Type Questions)

Write short notes on any *three* of the following.



3 × 5 = 15

2. Drying of grains.
3. Cocoa powder.
4. Pickles.
5. Statistical quality control.
6. Non-alcoholic beverages.

GROUP – C

(Long Answer Type Questions)

Answer any *three* of the following.

3 × 15 = 45

7. a) Narrate briefly the wet milling of the corn. What are the fractions resulted from this milling and how are they utilised in industries ? 10
b) What is puffed rice ? How puffing can be achieved ? What should be the moisture content of puffed rice ? 5
8. a) Which constituent gives coffee its stimulating effect ? Enumerate briefly the steps in the manufacturing of coffee from coffee beans. What is decaffeinated coffee and how is coffee decaffeinated by utilising a modern advanced process ? 10
b) What is instant tea ? Why aromatization of instant tea is essential and how is this achieved in industry ? 5
9. Mention the causes which may deteriorate a freshly prepared fruit juice. What are the chemicals usually used in preserving a fruit juice and how are their uses related with the acidity of the juices ? Suggest a chemical which may be suitably used for preserving of naturally coloured pomegranate and strawberry juices. 15



10. a) Give differences between :

- i) Jam and Preserve
- ii) Jelly and marmalade
- iii) Pickle and chutney
- iv) Sauce and ketchup

b) Discuss about the defects of Jelly.

(2 + 2 + 2 + 2) + 7

11. What do you mean by adulteration of food ?

Classify the types of adulteration and give example.

How can you detect the following adulteration ? (any *three*) :

- i) Mineral acid in vinegar
- ii) Argemone seeds in mustard seeds
- iii) Metanil yellow in sweets
- iv) Starch in sweets
- v) Dried seeds of papaya fruit in black pepper
- vi) Earthy matter in 'Hing'.

3 + 6 + (3 ∞ 2)

END