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GIET UNIVERSITY, GUNUPUR – 765022

B. Tech (Seventh Semester – Regular) Examinations, November – 2023

BPEBT7010 - Food Biotechnology

(Biotechnology)

Time: 3 hrs

Maximum: 70 Marks

Answer ALL Questions

The figures in the right hand margin indicate marks.

PART – A: (Multiple Choice Questions)

(1 x 10 = 10 Marks)

Q.1. Answer ALL questions

[CO#] [PO#]

- | | | |
|---|-----|-----|
| a. To enhance their nutritional content, Processed food products such as cereals and orange juice may be fortified with | CO1 | PO3 |
| (i) stabilizers | | |
| (ii) vitamins and minerals | | |
| (iii) chelators | | |
| (iv) antioxidants | | |
| b. What is the most popular GMO crop cultivated in the United States? | CO1 | PO1 |
| (i) Soyabean | | |
| (ii) Tomato | | |
| (iii) Corn | | |
| (iv) Cotton | | |
| c. HACCP gives assurance of | CO1 | PO7 |
| (i) Food quality | | |
| (ii) Food safety | | |
| (iii) Ingredient specificity | | |
| (iv) All of the above | | |
| d. Which of the following microorganism is used for Soy sauce production | CO2 | PO1 |
| (i) mold | | |
| (ii) fungi | | |
| (iii) bacteria | | |
| (iv) yeast | | |
| e. Which of the following is not included in the composition of Glucose syrup? | CO2 | PO1 |
| (i) 95-97% glucose | | |
| (ii) 1-2% maltose | | |
| (iii) 0.5-2% isomaltose | | |
| (iv) glucan 1,4-a-glucosidase | | |
| f. During the production of sauerkraut, cabbage is subjected to | CO3 | PO1 |
| (i) Fermented | | |
| (ii) Pasteurized | | |
| (iii) Lyophilized | | |
| (iv) Homogenized | | |
| g. A toxin commonly found in corn and peanuts is: | CO3 | PO1 |
| (i) Solanine | | |
| (ii) Aflatoxins | | |
| (iii) Goitrogens | | |
| (iv) Protease | | |
| h. Which of the following disease is not transmitted by raw milk | CO4 | PO1 |
| (i) Brucellosis | | |
| (ii) Tularemia | | |
| (iii) Tuberculosis | | |
| (iv) Diptheria | | |
| i. Vacuum packaged meats are spoiled by | CO4 | PO2 |
| (i) B. thermosphacta | | |
| (ii) Lactobacilli | | |
| (iii) Both (a) and (b) | | |
| (iv) none of these | | |
| j. Degumming is the process of removal of | CO2 | PO1 |
| (i) Phospholipids | | |
| (ii) Side-chains from amylopectin | | |
| (iii) oligosaccharide | | |
| (iv) fatty acids | | |

PART – B: (Short Answer Questions)**(2 x 10 = 20 Marks)**Q.2. Answer **ALL** questions

	[CO#]	[PO#]
a. Classify mushroom based on their usage.	CO1	PO1
b. Define Pickling. What are the common pickling methods?	CO1	PO1
c. What determines the characteristic porosity of breads and cakes?	CO2	PO2
d. Name any two wheat based fermented foods.	CO2	PO1
e. Name the spoilage occurs in vegetables and the microorganism responsible.	CO3	PO1
f. What is the role of drying mechanism in preservation?	CO3	PO2
g. State rancidity. Name any two microorganisms responsible for rancidity.	CO4	PO1
h. What is the lowest temperature at which food spoiling bacteria will grow?	CO4	PO1
i. Explain the importance of probiotics.	CO1	PO1
j. Explain the importance of enzyme in food industry.	CO2	PO1

PART – C: (Long Answer Questions)**(10 x 4 = 40 Marks)**Answer **ALL** questions

	Marks	[CO#]	[PO#]
3. a. Define food quality. Discuss about the different attributes of food quality.	5	CO1	PO1
b. Discuss about different types of oriental food and their production.	5	CO1	PO1
(OR)			
c. Explain about the ideal conditions required for SCP production.	5	CO1	PO1
d. What are ingredients? Why ingredients are added to foods?	5	CO1	PO1
4. a. Discuss about the role of protease in cheese making?	5	CO2	PO2
b. Write short notes on the role of enzymes in beverage production?	5	CO2	PO1
(OR)			
c. Write an account on food chemicals with suitable examples.	5	CO2	PO1
d. Write a note on production of sugar syrup.	5	CO2	PO1
5. a. What is D value and F value?	5	CO3	PO1
b. What is parboiling of paddy? How does nutritional characteristics change due to parboiling?	5	CO3	PO3
(OR)			
c. Give an account on Low temperature food preservation methods.	5	CO3	PO1
d. Describe the commercial heat preservation method.	5	CO3	PO3
6. a. Discuss about the microbiology of fruits and fruit products.	5	CO4	PO2
b. Discuss about causes, symptoms and preventive measures of food borne diseases.	5	CO4	PO3
(OR)			
c. Give a detailed note on pasteurization and Thermal death curve of microorganism.	5	CO4	PO3
d. Discuss the spoilage of Meat and meat products.	5	CO4	PO2

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