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GIET MAIN CAMPUS AUTONOMOUS GUNUPUR – 765022

B. Tech Degree Examinations, November – 2021

(Seventh Semester)

BBTPE7030 – FOOD BIOTECHNOLOGY

(Biotechnology)

Time: 3 hrs

Maximum: 100 Marks

Answer ALL Questions**The figures in the right hand margin indicate marks.****PART – A: (Multiple Choice Questions)****(2 x 10 = 20 Marks)****Q.1. Answer ALL questions****[CO#] [PO#]**

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|--|-------------------------------------|-----|
| a. Vitamin C and vitamin E, BHA and BHT, and sulfites are all | CO1 | PO1 |
| (i) Flavour enhancer | (ii) Antimicrobial agent | |
| (iii) Incidental food agent | (iv) Antioxidants | |
| b. Which is a genetically modified crop? | CO1 | PO1 |
| (i) Bt-cotton | (ii) Bt-brinjal | |
| (iii) Golden rice | (iv) All | |
| c. The most common drying method is. | CO1 | PO1 |
| (i) freeze spray | (ii) sun drying | |
| (iii) spray | (iv) oven | |
| d. Which is an adulterant | CO1 | PO1 |
| (i) Pesticides | (ii) Urea | |
| (iii) Iron filings in tea | (iv) All of the above | |
| e. The Golden Rice variety is rich in | CO1 | PO1 |
| (i) Vitamin C | (ii) B-carotene and ferritin | |
| (iii) Biotin | (iv) Lysine | |
| f. A substance intentionally added that preserves flavour and improves taste is called ? | CO1 | PO1 |
| (i) Food additive | (ii) Food adulterant | |
| (iii) Food contaminant | (iv) Food material | |
| g. Which of the following is produced by fermentation of milk? | CO2 | PO1 |
| (i) Yogurt | (ii) Sauerkraut | |
| (iii) Tempeh | (iv) Kombucha | |
| h. Which of the following microbe is used in the production of cheese? | CO2 | PO1 |
| (i) Streptococcus thermophilus | (ii) Lactobacillus bulgaricus | |
| (iii) Penicillium roqueforti | (iv) Rhizopus stolonifer | |
| i. What are the intrinsic factors for microbial growth? | CO3 | PO1 |
| (i) pH | (ii) Moisture | |
| (iii) Oxidation-Reduction Potential | (iv) All of the above | |
| j. What is brine? | CO2 | PO1 |
| (i) Sugary Water | (ii) A type of vinegar for pickling | |
| (iii) Salty Water | (iv) A sauce | |

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

	[CO#]	[PO#]
a. Give two application of genetically modified foods?	CO1	PO1
b. Name two fermentative food products?	CO1	PO1
c. Give two importance of fermentative food products?	CO2	PO1
d. Name two fungal toxin?	C03	PO1
e. What is food born infection and food intoxication?	C03	PO2
f. What should the important characteristics of microorganisms during food fermentation?	CO4	PO1
g. What do you mean by whey? Which enzyme present in it?	CO2	PO1
h. What is single sell protein?	CO1	PO1
i. Name two microbes present in spoiled fruits?	CO4	PO1
j. What is canning?	C03	PO1

PART – C: (Long Answer Questions)**(15 x 4 = 60 Marks)**Answer ALL questions

	Marks	[CO#]	[PO#]
3. a. Enumurate the various varieties of mushroom and discuss the application of mushroom in various fields?	10	CO1	PO1
b. Write a note on pickling?	5	CO1	PO1
(OR)			
c. Write a notes on oriental foods?	5	CO1	PO1
d. Write notes on prebiotic and probiotic in different food products?	10	CO1	PO6
4. a. Explain about the genetically modified food production?	5	CO2	PO1
b. Explain about microbiology of water?	10	C03	PO2
(OR)			
c. Discuss about the utilization of food waste for production of value added products with application?	10	CO2	PO2
d. Write short notes on the role of enzymes in beverage production?	5	CO2	PO2
5. a. Write about pesticide and herbicide contamination in food products?	10	C03	PO2
b. Write notes on microbiology of milk?	5	C03	PO1
(OR)			
c. Discuss about the microbiology of cereal and cereal products?	5	CO4	PO1
d. Explain in detail about microbial and chemical safety of food products?	10	C03	PO2
6. a. Discuss in detail about the role of protease in cheese making?	10	CO2	PO2
b. What is single cell protein? Discuss the impact of SCP in food technology?	5	CO1	PO6
(OR)			
c. Discuss about food spoilage and control of food spoilage?	10	C03	PO2
d. Explain about the microbiology of fruits & vegetables?	5	CO4	PO1

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