Ref. No. : Ex/FTBE/PE/B/T/422A/2024 (S)

B.E. FOOD TECHNOLOGY AND BIO-CHEMICAL ENGINEERING FOURTH YEAR

SECOND SEMESTER SUPPLEMENTARY EXAM– 2024

Subject : FOOD BIOTECHNOLOGY

Time: 3hr **Full Marks: 100**

Part I (Total Marks 50)

Instructions : Use Separate Answer scripts for each part

Answer any **five** questions from the following: 5x10 50

1. Biotechnology can be used for the benefit of agriculture and food production- explain with at least five examples. Value addition and waste management can be done with the help of biotechnology-justify. 5+5 10

2. Write the steps of preparation of rDNA mentioning the tools needed. Mention any **five** examples of application area of it. 5+5 10

3. What is SCP? What are the safety factors of SCP? What are the advantages of using yeast cells for SCP production? 1+5+4 10

4. What are the basic steps for production of Single cell protein? What are the application and limitation of SCP? 5+5 10

5. What do you mean by functional food? Give two examples of it. What are the merits of fermented food? Why fermented foods are having therapeutic values? 2+2+3+3 10

6. Write a short note on (any one) : 10

i. Production of a fermented meat product

ii. Production of a fermented cereal product.

[Turn over

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FOURTH YEAR SECOND SEMESTER SUPPLEMENTARY EXAM 2024

FOOD BIOTECHNOLOGY

Time: 3 hrs **Full Marks: 100**

Part – II (50 Marks)

Group-A

Answer any one question $1 \times 10 = 10$

1. Briefly describe the quality parameters of card and measurement processes.
2. Write short note on trans-easterification. Write applications of trans-easterified fats.

Group-B

Answer any two questions $2 \times 20 = 40$

3. Write the applications of modified carbohydrates. Briefly describe different carbohydrate modification methods. $8+12 = 20$
4. Write the applications of modified proteins in different industries. Briefly describe different protein modification methods. $8+12 = 20$
5. Write short note on HFCS production process with flow chart. What are the different grades of HFCS? Write the applications of HFCS. $12+4+4 = 20$