Avinashilingam Institute for Home Science and Higher Education for Women
(Deemed to be University Estd. u/s 3 of UGC Act 1956, Category A by MHRD)
Re-accredited with A++ Grade by NAAC. CGPA 3.65/4, Category I by UGC
Coimbatore - 641 043, Tamil Nadu, India

Continuous Internal Assessment – II – April 2025
II Semester

Class: II M.Sc. **Time: 2 Hours**
Branch : Food Science and Nutrition **Max. Marks: 60**

23MFNC08 Food Biotechnology

Course Outcomes:

1. To gain knowledge on the techniques and tools of genetic engineering
2. To understand fermentation and enzymatic technology in food industries
3. To explore biotechnological techniques in the production of food based products.
4. To learn the safety of biotechnological implications in foods.
5. To imbibe skills on biotechnological approaches in the production of food additives.

Part A **6 x 1 =6**

Choose the Correct Answer

1. The total Protein (dry weight) content of Fungi is CO3K1
   a. 40-60% b. 30-45%
   c. 45-55% d. 50-65%
2. Single Nucleotide Polymorphism (SNPs) refers to CO5K2
   a. Changes in protein b. Alteration in allele
   c. Alteration in a single nucleotide d. changes in units of heredity
3. Plasmid responsible for gene transfer in plants is CO3K2
   a. PBR 322 b.COI E1
   c. Ti plasmid d. pUC 19
4. Cyt P450 enzymes catalyses CO5K4
   a. Methylation b. Oxidation
   c. Phase II reaction d. Phase I reaction
5. Enzyme involved in the production of HFCS is CO4K3
   a. α-amylase b. β amylase
   c. Glucose isomerase d. Glucose oxidase
6. Soybean paste, Doeniang is prepared using the starter culture of CO3K5
   a. Pseudomonas b. Bacillus Subtilis
   c. Escherichia Coli `` d. Streptococcus lactis

Part B **3 x 6 = 18**

Answer All questions
Each answer should not exceed 400 words or two pages

7.a Write on Synthesis of Spirulina. CO2 K3

(or)

7.b. How are Transgenic plants produced? Write on flavrsavr tomatoes CO1 K3

8.a Are Soya based foods important? Illustrate with an example.. CO4 K5

(or)

8.b How is Vitamin A & Ergosterol produced commercially, by biotechnology route? CO4 K4

9.a.	Write on biodynamics of xenobiotics.	CO4 K3
	(or)	
9.b	Is nanotechnology an emerging field? Justify.	CO5 K4

Part C **3 x 12 = 36**

Answer All questions

Each answer should not exceed 800 words or four pages

10.a.	Are mushrooms good sources of protein? How are mushroom cultured?.	CO3 K5
	(or)	
10.b.	Exhibit the yeast Biomass production	CO3 K2
11.a.	How is Citric acid, as organic acidulant produced?	CO4 K4
	(or)	
11.b.	Describe principles and process of Cheese making	CO4 K5
12.a.	Is metabolism of Xenobiotics necessary? Justify	CO5 K3
	(or)	
12.b.	What is the impact of Biotechnology on the nutritional quality of foods?.	CO5 K4

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