

2023

5th Semester Examination

NUTRITION (Honours)

Paper : DSE 2-T

[CBCS]

*The figures in the margin indicate full marks.  
Candidates are required to give their answers  
in their own words as far as practicable.*

[Quality Assurance in Food Sector]

Full Marks : 60

Time : Three Hours

Group - A

Answer any *ten* of the following questions ;  $2 \times 10 = 20$

1. What do you mean by referral laboratories?
2. Write the importance of food analysis.
3. What is food sampling?
4. Who are food safety authorities?
5. How GLP helps us?
6. What do you mean by sensory analysis of food?
7. What do you mean by good quality of food?

P.T.O.

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8. What is food additive?
9. Give one example of naturally occurring anti-nutritional component and toxic compound in food. 1+1
10. Define RT-PCR.
11. What is SOPs?
12. Write the advantages of using ELISA.
13. Mention the role of 'Food Analyst'.
14. What are the precautions that should be taken during food analysis?
15. Differentiate between HPLC and TLC.

### Group - B

Answer any *four* of the following questions :  $5 \times 4 = 20$

16. Briefly describe the functions of lipid in food.
17. Write a short note on GLP.
18. Describe the stepwise sequence of microbiological analysis of food.
19. How will you biochemically detect protein in food?
20. Describe the working principle of ELISA.
21. Describe the procedure of PCR.

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**Group - C**

Answer any *two* of the following questions :  $10 \times 2 = 20$

22. What are the regulatory permissions needed to conduct food analysis? How physical analysis of food is conducted?  
5+5
23. Write the principle and application of HPLC. What is GC?  
4+5+1
24. How will you detect the presence of additives in food? State the basic working principle of triple quadrupole system.  
6+4
25. Briefly describe the chemical analysis of food. Give a brief idea on hierarchy of food safety authorities with justification.  
4+6
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P.T.O.

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OR

[Quality Control and Food Standards]

Full Marks : 60

Time : Three Hours

Group - A

Answer any *ten* of the following questions :  $2 \times 10 = 20$

1. What is food intoxication?
2. What is FALCPA?
3. What do you mean by physical hazards?
4. What is food safety?
5. Enumerate the term GMO.
6. What do you mean by foodchain?
7. What is total quality management?
8. Define the term 'GAP'.
9. What do you mean by quality policy?
10. What is contaminant?
11. Enumerate the term food suitability.
12. Where did HACCP come from?
13. What is codex standard?
14. Define the term 'document control'.
15. What is consumer packaged goods?

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**Group - B**

Answer any *four* of the following questions :  $5 \times 4 = 20$

16. Write the packaging and sealing of food sample.  
 $2\frac{1}{2} + 2\frac{1}{2}$
17. What is GMP? Write down the objectives and benefit of GMP.
18. Explain the relationship between HACCP and PRP.
19. What do you mean by tests for portability? List the key elements of ISO 22000.  $2 + 3$
20. Briefly explain about the different categories of risks associated with retail food.
21. Mention the purposes that are served by a sampling plan.

**Group - C**

Answer any *two* of the following questions :  $10 \times 2 = 20$

22. What is GHP? Write down the objectives of GHP? Explain in brief about the key aspects of hygiene control system.  $2 + 2 + 6$
23. Discuss about the operational control of food establishment. State the conditions which should be reported for management of personnel illness.  $6 + 4$

P.T.O.

( 6 )

24. Which are the essential elements of HACCP plan?  
Discuss about critical control point and its application.  
4+6

25. What is the importance of sample collection in analysis  
of food products? Illustrate your idea on community  
waste disposal.  
6+4

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OR

[Food Quality and Sensory Evaluation]

Group - A

Full Marks : 40

Time : Two Hours

Answer any *five* of the following questions :  $2 \times 5 = 10$

1. What is 'Electronic Tongue'?
2. What is 'Munsell colour system'?
3. Name the receptors involved in texture perception.
4. Write any two merits and demerits of ordinal scale of measurement technique.
5. Write the name of organs involved in taste perception.
6. What is Hypoguesia and Hyposmia?
7. Differentiate between odour and flavour.
8. Write the name of the nerves that involved in taste and smell perception.

Group - B

Answer any *four* of the following questions :  $5 \times 4 = 20$

9. Write the factors that affect the taste quality?
10. Write the mechanism of odour perception.

P.T.O.

11. State the application of texture measurement in meat and meat products.
12. Describe the phase of oral processing.
13. Write about the forces involved in texture. Write the classification of food texture with example.  $2\frac{1}{2}+2\frac{1}{2}$
14. Write the name of different types of colour measurement technique and any one advantage of each technique. State the basic rheological model of texture measurement.  $2\frac{1}{2}+2\frac{1}{2}$

### Group - C

Answer any *one* of the following questions :  $10 \times 1 = 10$

15. What are the quality attributes of food? Write the mechanism of taste perception. Write a short note on taste abnormalities.  $2+5+3$
16. What are the historical perspective of odour measurement technique? Write the names of different types of odour measurement techniques and write any two merits and demerits of each type of technique.  $2+2+6$