

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI-86
(For candidates admitted from the academic year 2023–24 & thereafter)

M.A./M. Sc. DEGREE EXAMINATION, APRIL 2026
SECOND SEMESTER

COURSE : ELECTIVE
PAPER : FOOD CHEMISTRY AND NUTRITION
SUBJECT CODE : 23CH/PE/FN23
TIME : 3 HOURS **MAX. MARKS: 100**

Q. No.	SECTION A Choose the correct answer. (10 x 1 = 10 marks)	CO	KL
1.	Excess carbohydrates in humans ultimately become (a) Fats (b) Starch (c) Proteins (d) Nucleic acids	1	1
2.	Choose the INCORRECT statement about fat (a) It is made of Carbon, Hydrogen and Oxygen (b) It maintains our body temperature (c) It protects our nerves (d) It does not supply energy	1	1
3.	Identify the food item that contains unsaturated fat (a) Butter (b) Cheese (c) Olives (d) Yoghurt	1	1
4.	Arrange the following food groups from highest to lowest recommended intake: i) Fruits ii) Oils iii) Cereals iv) Pulses (a) iii > i > iv > ii (b) ii > iv > i > iii (c) i > iii > ii > iv (d) iv > i > iii > ii	1	1
5.	Identify the INCORRECT statement about the function of calcium in our body (a) It regulates nerve signaling (b) It normalizes cardiac muscle activity (c) It promotes dental health (d) It promotes memory, concentration and intelligence	1	1
6.	Which vitamin is necessary for proper blood clotting? (a) Vitamin C (b) Vitamin K (c) Vitamin D (d) Vitamin B6	1	1
7.	Which of the following has less glycemic index (a) Fibre (b) Starch (c) Sugar (d) Glucose	1	1
8.	_____ is an example of a fibrous protein. (a) Haemoglobin (b) Myoglobin (c) Keratin (d) Albumin	1	1
9.	Browning of an apple is due to _____ process. (a) Caramelization (b) Non-enzymatic browning (c) Enzymatic browning (d) Maillard reaction	1	1
10.	Vitamin C is also known as _____. (a) Ascorbic acid (b) Niacin (c) Riboflavin (d) Folic acid	1	1

Q.No.	SECTION B Answer ALL the questions. (10 x 1 = 10 marks)	CO	KL
11.	The Recommended Dietary Allowance (RDA) for protein for an average adult is approximately_____	2	2
12.	A BMI of 31.2 kg/m ² is considered _____	2	2
13.	How much energy is provided by 1 gram of fat?	2	2
14.	The elements that are required to build strong healthy bones are _____ and _____	2	2
15.	Fibers have _____ glycemic index.	2	2
16.	Fish Liver oil is rich in _____	2	2
17.	The recommended dietary allowance of Phosphorus for a normal healthy adult is _____ mg/day.	2	2
18.	The type of fat most associated with an increased risk of heart disease is _____	2	2
19.	The expansion of ICMR is _____.	2	2
20.	Scurvy is due to the deficiency of _____.	2	2
Q. No.	SECTION C Answer any FOUR questions. (4 x 6 = 24 marks)	CO	KL
21.	Write the importance of fibre and water in a diet	3	3
22.	Apply the food pyramid guidelines to advise a middle-aged adult with high blood pressure on improving dietary habits.	3	3
23.	Outline the experimental method used to determine BMR	3	3
24.	What are the dietary sources of phosphorous and explain its function in our body.	3	3
25.	Illustrate the role of Vitamin A and Vitamin D in our body.	3	3
Q. No.	SECTION D Answer any FOUR questions. (4 x 8 = 32 marks)	CO	KL
26.	Compare different cooking methods and the nutritional changes that happen during each process	4	4
27.	Explain the protein-deficiency diseases, Marasmus and Kwashiorkor.	4	4
28.	Describe the functions, deficiency diseases and recommended dietary allowances of calcium and iodine.	4	4

29.	Discuss the advantages and disadvantages of any three artificial sweeteners.	4	4
30.	Explain the importance of nutrition education among youth.	4	4
Q. No.	SECTION E Answer the following questions. (2 x 12 = 24 marks)	CO	KL
31.	Describe the sources, functions and deficiency disease related to fat-soluble vitamins. (OR)	5	5
32.	Elaborate on the sources, classification and the significant functions of protein.	5	5
33.	What are the dietary sources of carbohydrates and explain its function in our body? (OR)	5	5
34.	(i) Explain the role of national and international organizations in combating malnutrition. (6) (ii) What is Recommended Dietary Allowance? What are the factors that affect RDA? (6)	5	5
