STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI-86 (For candidates admitted during the academic year 2019–2020 & thereafter)

SUBJECT CODE: 19CH/PE/FN23

M.Sc. DEGREE EXAMINATION, NOVEMBER 2022 BRANCH IV- CHEMISTRY THIRD SEMESTER

COURSE : **ELECTIVE**

PAPER	: FOOD CHEMISTRY AND NUTRITION			
TIME	: 3 HOURS		MAX.MARKS:100	
	SECTION – A		(20x1=20)	
	l the questions:			
I. Choose	e the correct answer:			
1. A substa	ance needed by the body for g	rowth, energy, repair an	nd maintenance is called a	
(a) Nutri	ient (b) Carbohydrate	(c) Calorie	(d) Fatty acid.	
2. Which o	of the following is the simples	t form of carbohydrates	?	
(a) Carbo	oxyl group	(b) Aldehyde and I	Ketone group	
(c) Alcol	hol and Carbonyl group	(d) Hydroxyl and I	Hydrogen group.	
3. Which o	of the following mineral control	ols the growth of body v	weight?	
(a) Iodin	e (b) Calcium	(c) Phosphorous	(d) Sodium.	
4. Which o	of the following diseases is can	used by Protein deficien	cy?	
(a) Anac	emia (b) Hypothyroid	ism (c) Kwashiorkor	(d) Scurvy.	
5. Where is	s the head-quarters of World I	Health Organization (W	HO)?	
(a) New	Delhi, India (b) London, U	UK (c) Berlin, Germa	ny (d) Geneva, Switzerland	
II. Fill in	the blanks:			
6. Food pas	sses through the stomach dire	ectly by	·	
7	is the general formul	a of carbohydrates.		
8	type vitamins are cal	led fat-soluble vitamins		
9. The proc	cess of protein synthesis invol	lved organelles cells are	•	
10. United	nations children's fund (UNI	CEF) is created on	·	
III. State v	whether true or false:			
11. Vitamii	n-A nutrient is most importan	nt for healthy vision.		
12. Storage	e and structural framework are	e the major functions of	carbohydrates.	
_	ive intake of calcium in our d	=	-	
14. Protein	s are not made up of amino a	cids.		
15. The hea	ad-quarters of Food and agric	ulture organization are	established in ROME.	

(10).

IV. Match the following:

proteins.

Agricultural Research (ICAR)

16. Citrus fruits (A) Glyceraldehyde 17. Triose (B) Insulin 18. Blood pressure (C) National Institute of Nutrition 19. Frederick Sanger (D) Vitamin-C 20. Robert McCarrison (E) Sodium SECTION - B $(5 \times 8 = 40)$ **Answer any FIVE questions:** 21. Explain the interrelationship between nutrition and health. 22. (a) Describe the determination of BMR. (5) (b) Write the advantages of Artificial sweetening agent. (3) 23. Explain the sources, chemical classification and functions of lipids. 24. Explain the sources, functions and deficiency of Iron and Phosphorous mineral. 25. Discuss the functions and deficiency of Ascorbic acid and Folic acid. 26. Write note on the following terms: (a) Protein Energy Malnutrition (b) Marasmus and Kwashiorkor diseases. 27. Explain the methods used in nutrition education. SECTION - C $(2 \times 20 = 40)$ **Answer any TWO questions:** 28. (a) Describe the factors affecting, general principles and determination of RDA (12) (b) Write note on the functions of carbohydrates (8) 29. (a) Write note on the following terms: (i) Vitamin-K, (ii) Vitamin B₁₂ (iii) Thiamine (iv) Riboflavin (16)(b) Explain the classification of vitamins (4)

(b) Discuss the role of world health organization (WHO) and Indian Council of

30. (a) Describe the sources, classification, functions and recommended dietary allowances of