

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI-86
(For candidates admitted during the academic year 2019-20 & thereafter)

M.Sc. DEGREE EXAMINATION, NOVEMBER 2023
BRANCH IV- CHEMISTRY
THIRD SEMESTER

COURSE : ELECTIVE
PAPER : FOOD CHEMISTRY AND NUTRITION
SUBJECT CODE : 19CH/PE/FN23
TIME : 3 HOURS **MAX.MARKS :100**

SECTION A

ANSWER ALL THE QUESTIONS. (20 x 1 = 20 marks)

I. Choose the correct answer.

1. Which does not belong to the basic food groups?
a) Carbohydrates b) Proteins c) Water d) Fat
2. These nutrients are synthesized in the body.
a) Macronutrients b) micronutrients c) Essential d) Non-essential
3. Carbohydrates with a _____ glycemic index cause _____ digestion.
a) High, slow b) High, fast c) Low, slow d) Low, fast
4. _____ can be used as an artificial sweetener.
a) Sucrose b) Glucose c) Sucralose d) Glycine
5. Which is not a fat soluble vitamin?
a) A b) D c) E d) B
6. Vitamin C is also known as _____.
a) Ascorbic acid b) Niacin c) Riboflavin d) Folic acid
7. _____ is an example of a fibrous protein.
a) Haemoglobin b) Myoglobin c) Keratin d) Albumin
8. The recommended dietary allowance of proteins for a female between 19 to 50 years is
a) 13 g b) 34 g c) 46 g d) 60 g
9. Indian Council of Agricultural Research has developed _____ cereals to promote nutrition.
a) Low GI b) High GI c) Biofortified d) All the above
10. World declaration and plan of action for Nutrition was adopted in _____.
a) 1980 b) 1992 c) 2002 d) 2013

II. Fill in the blanks.

11. Kwashiorkor is due to the deficiency of _____.
12. Scurvy is caused by _____.
13. The sweetener that is an amino acid is _____.
14. The expansion of ICMR is _____.
15. _____ is the rate at which the body uses energy at rest.

III. Answer in a line or two.

16. What are essential fatty acids?
17. What is B12 vitamin also known as?
18. What are the types of malnutrition?
19. What is the RDA of carbohydrates?
20. What is Body Mass Index?

SECTION B**ANSWER ANY FIVE QUESTIONS.****(5 x 8 = 40 marks)**

21. What are the basic food groups? Explain their significance.
22. What are the functions of carbohydrates?
23. Describe the effects of cooking on vitamins and minerals.
24. Explain the classification of proteins.
25. Discuss the role of any two national agencies to combat nutrition.
26. Describe the functions, deficiency diseases and recommended dietary allowances of calcium and iodine.
27. Discuss the advantages and disadvantages of any three artificial sweeteners.

SECTION C**ANSWER ANY TWO QUESTIONS.****(2 x 20 = 40 marks)**

28. a) What are fat soluble vitamins? Discuss their sources and functions in the body. (10 marks)
b) Explain the protein deficiency diseases, Marasmus and Kwashiorkor. (10 marks)
29. a) Explain the effect of cooking on carbohydrates and storage. (10 marks)
b) What is the role of WHO and FAO with respect to nutrition. (10 marks)
30. a) What is Recommended Dietary Allowance? What are the factors that affect RDA? (10 marks)
b) What is basal metabolism? How is it determined? (5 marks)
c) Give the sources and functions of lipids. (5 marks)
