**ST MARY’S UNIVERSITY**

**TWICKENHAM, LONDON**

BA//BSc Degree Examination students registered for

Level **FOUR**

Title**: Introduction to Nutrition II**

Code: **NUT4033**

Semester: **TWO**

Date: **May 13th 2019**

Time: **9:30 – 11:00 AM**

TIME ALLOWED: **ONE HOUR** AND **THIRTY** MINUTES

Answer **ALL** questions on the separate multiple choice answer form for **Section A** and in an answer booklet for **section B.**

Remember to enter your Name, the Module Title, Module Number, your

Regnum (Student ID Number) on **ALL** your answer forms and booklets.

You may use an approved calculator

**Section A (select one answer)**

1. Extremely low levels of vitamin C lead to:
   1. Teratogenic effects to new-borns in pregnant women
   2. Liver toxicity
   3. Scurvy
   4. GI issues
2. Which of these foods does not contain vitamin C?
3. White potatoes
4. White rice
5. Cabbage
6. Liver
7. Which of the following is a characteristic of fat soluble vitamins?
   1. Excesses are stored in the liver and adipose tissue
   2. Travel freely in the blood
   3. There is no risk of toxic issues
   4. Daily intakes needed to maintain blood levels
8. Vitamin A and zinc are linked in vision in that:
9. Zinc is needed for the enzyme that converts retinol to retinal
10. Zinc is needed for the enzyme that converts retinol to retinoic acid
11. Vitamin A binds to zinc in the retina
12. Zinc and vitamin A are not linked to vision
13. Primary deficiency of vitamin K occurs in:
14. Vegans
15. Adolescents
16. Middle aged males
17. New born babies
18. Which one of the following is not a function of vitamin E?
    1. Antioxidant
    2. Prevents peroxidation of PUFA
    3. Cell signalling
    4. Coagulant
19. The main functions of vitamin D are:
    1. Calcium and iodine homeostasis
    2. Calcium and iron homeostasis
    3. Bone metabolism and iron homeostasis
    4. Calcium homeostasis and bone metabolism
20. Anaemia is associated with a low intake of which mineral?
    1. Calcium
    2. Phosphorous
    3. Iron
    4. Zinc
21. Which of the following does not occur as a symptom of dietary iron deficiency?

a. Poor temperature regulation

b. Fatigue

c. Depressed immune system

d. Abnormal silver hair growth

1. Ferritin and hemosiderin are:
2. Storage forms of iron
3. Other forms of haemoglobin
4. The iron-protein carriers in the blood
5. Types of red blood cells
6. The current UK reference nutrient intake for selenium for female adults is:
7. 25 µg/day
8. 60 µg/day
9. 100 µg/day
10. 70 µg/day
11. Selenium deficiency leads to:
12. Keshan disease
13. Goitre
14. Marasmus
15. Hypothyroidism
16. Which is a feature of Wilson’s copper toxicity disease (in 95 % of cases)?
17. Keyser-fleisher ring
18. Silvery sparse hair growth
19. Retinal detachment
20. Yellow Skin
21. In children, iodine deficiency leads to:
22. Down’s syndrome
23. Rickets
24. Cretinism
25. Anaemia
26. The availability of iodine is linked to the functioning of which hormone?
27. Adrenalin
28. Thyroxin
29. Insulin
30. Aldosterone
31. Toxicity of fluoride:
32. Is not possible because fluoride cannot be stored
33. Is possible and is called fluoridation
34. Is possible and is called fluorosis
35. Is possible and is called fluoride intoxication
36. Bowed legs, an enlarged and misshapen head, and enlarged knee joints in children are all symptoms of:
37. Rickets
38. Xerophthalmia
39. Osteoporosis
40. Vitamin D toxicity
41. Vitamin D toxicity can lead to:
42. Hypercholesterolemia
43. Hypocholesterolemia
44. Hypercalcaemia
45. Hypocalcaemia
46. Which of the following statements for vitamin D is true?
47. The RNI is 10 milligrams per day
48. There is no RNI for vitamin D
49. There is only an RNI for pregnant and lactating women and the elderly
50. The RNI for vitamin D is 10 micrograms per day
51. Which vitamin should be taken as a supplement by vegans, as it is only present in animal foods?
    1. Vitamin D
52. Vitamin A
53. Vitamin B12
54. Vitamin C
55. The primary function of sodium is to maintain:
56. Haemoglobin concentration
57. Immune function
58. Fluid distribution
59. Constant levels of retinal in cones and rods
60. Which of the following is/are associated with high dietary salt intake?
61. Raised blood pressure
62. Raised HDL cholesterol
63. Raised plasma glucose
64. All of the above
65. Which of the following statements is TRUE?
66. 1g sodium = 1g salt
67. 1g sodium = 2.5g salt
68. 1g salt = 2.5g sodium
69. 1g sodium = 4.2g salt
70. Which of the following is NOT a clinical feature of pellagra?
71. Goiter
72. Dermatitis
73. Diarrhoea
74. Dementia
75. Which of the following B vitamins helps prevent Neural Tube Defects in children when consumed in adequate amounts during pregnancy?
76. Folate
77. Thiamin
78. Niacin
79. Vitamin B12
80. What is the most reliable food source of zinc?
81. Orange juice
82. Meats and seafood
83. Dark green vegetables
84. Bread
85. What is goitre?
86. A smaller than normal thyroid gland
87. A smaller than normal pituitary gland
88. A larger than normal thyroid gland
89. A larger than normal pituitary gland
90. Which of these are all antioxidants?
    1. Folate, Vitamin C and magnesium
    2. Vitamin A, Vitamin C and folate
    3. Beta carotene, vitamin C and vitamin E
    4. Vitamin C, beta carotene and folate
91. Which of these food groups are higher in phytates and oxalates?
92. Fish
93. Citrus fruits
94. Dairy produces
95. Leafy vegetables
96. Which mineral ion is at the center of chlorophyll?
97. Magnesium
98. Iron
99. Manganese
100. Salt

**SECTION B short answers (2 Marks)**

1. List the four signs of vitamin C deficiency.
2. Describe two ways to measure hydration.
3. List four ergogenic aids.
4. Describe the main sources of vitamin D.
5. What is a free radical?
6. List four factors that increase calcium absorption.
7. List four symptoms of iron deficiency.
8. Give two symptoms of Beriberi Thiamin (Vitamin B1) deficiency.
9. List four food sources of copper.
10. List four risks of zinc deficiency.

**END OF EXAMINATION**

NUT4033 Multiple Choice Answer Sheet

**Regnum:…………………**

Insert the letter of your chosen answer into the column below.

|  |  |
| --- | --- |
| **Question** | **Answer (a, b, c, d)** |
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**Please attach this to your exam script with the treasury tag provided.**