**BP812ET: DIETARY SUPPLEMENTS AND NUTRACEUTICALS**

1. Define Nutraceuticals. Classify Nutraceuticals depending upon their characteristics and major uses.
2. Classify carotenoids with examples and write about their occurrence? Explain their biological properties.
3. Describe the free radical theory of ageing along with examples.
4. Define public health. Write in detail about the Nutraceuticals and dietary supplements used in maternal and child nutrition.
5. Classify polyphenolics with examples and write about their occurrence? Explain their biological properties.
6. What are antioxidants? Explain the biological role of endogenous enzymatic antioxidants.
7. What are functional foods? Write the sources, marker compounds, medicinal uses and health benefits of Spirulina.
8. Classify flavonoids with examples and write about their occurrence? Explain their biological properties.
9. What are antioxidants? Explain the biological role of non-enzymatic antioxidants.
10. Write in detail sources, marker compounds, method of usage and health benefits of Garlic.
11. Classify polyphenolics with examples and write about their occurrence? Explain their biological properties.
12. Describe the role of free radical in initiation and progression of inflammation and kidney damage.
13. Classify tocopherols with examples and write about their occurrence? Explain their biological properties.
14. Describe the free radical theory of ageing along with examples.
15. Define Hypertension and Stress. Write the Pathogenesis and Nutraceuticals used for the control of Hypertension and Stress.
16. Explain Nutraceuticals to be used and dietary habits to be avoided for prevention or control of Diabetes.
17. Classify carotenoids with examples and write about their occurrence? Explain their biological properties.
18. Describe the free radical induced pathogenesis of atherosclerosis and ischemic reperfusion
19. Define public health. Write in detail about the Nutraceuticals and dietary supplements used in maternal and child nutrition.
20. Classify carotenoids with examples and write about their occurrence? Explain their biological properties.
21. What are antioxidants? Explain the biological role of endogenous enzymatic antioxidants.
22. Classify flavonoids with examples and write about their occurrence? Explain their biological properties.
23. Write the medicinal uses, health benefits and marker compounds of Gingko and Ginseng.
24. Write briefly on biological role of various enzymatic and non enzymatic endogenous antioxidants in defending free radical induced pathogenesis.
25. Write in detail sources, marker compounds, method of usage and health benefits of Garlic
26. Classify phytoestrogens with examples and write about their occurrence? Explain their biological properties.
27. Explain the steps involved in development of free radical mediated damage caused to Kidney and brain metabolism.
28. Explain in detail about marker compounds, medicinal uses, source, health benefits of Soya bean and Broccoli
29. What are fat soluble vitamins? Write a note on their occurrence and medicinal uses.
30. Describe the free radical induced pathogenesis of atherosclerosis and ischemic reperfusion injury.

**SHORT ESSAYS (5 marks)**

1. Differentiate between polyphenols and flavonoids
2. Write about nutraceuticals and dietary supplements used for management of diabetics.
3. Write a note on prebiotics and probiotics
4. Explain the process of lipid peroxidation and its impact.
5. Explain the role of complex carbohydrates as functional foods along with examples.
6. What are synthetic antioxidants? Write their mode of action and uses.
7. Enlist various endogenous and exogenous antioxidants. Write the biological role of superoxide dismutase.
8. Define adulteration. Explain the types and causes of food adulteration.
9. Explain the impact of processing condition on nutraceuticals.
10. Write the health benefits and marker compounds of soya bean and flaxseeds.
11. Role of cereals as functional foods.
12. Classify sulfides with examples and write about their occurrence? Explain their biological properties
13. Explain the role of complex carbohydrates as functional foods along with examples.
14. What are dietary fibres? Explain their importance as functional foods.
15. Enlist various endogenous and exogenous antioxidants. Write the biological role of superoxide dismutase.
16. What are synthetic antioxidants? Write their mode of action and uses.
17. Write in detail the Pharmacopoeial specifications for dietary supplements and nutraceuticals.
18. Explain the effects of storage conditions on nutraceuticals.
19. Write a note on prebiotics and probiotics
20. Write about the phytoconstituents and health benefits of spirulina and broccoli.
21. Explain the process of free radicals mediated damage to proteins
22. Differentiate between polyphenols and flavonoids.
23. Explain the process of lipid peroxidation and its impact.
24. Explain the role of free radicals in pathogenesis of diabetes mellitus.
25. Write brief note on functional foods for prevention of atherosclerosis and cancer.
26. Describe briefly the principles of HACCP on food safety.
27. Write a note on regulatory aspects of FSSAI on food safety.
28. Define hypertension. Write about the nutraceuticals used for prevention and control of hypertension
29. Explain the role of polyphenols in as antioxidant nutraceuticals.
30. Explain the process of lipid peroxidation and its impact.
31. What are the Sources and functions of tocopherols as functional foods?
32. Explain the process of lipid peroxidation and its impact.
33. Explain the role of free radicals in pathogenesis of cancer.
34. Write the mode of action and biological uses of catalase and glutathione.
35. Describe the organizational structure of food safety and standards authority of India.
36. Define adulteration. Explain the types and causes of food adulteration.
37. Define hypertension. Write about the nutraceuticals used for prevention and control of hypertension.
38. Explain the effects of storage conditions on nutraceuticals.
39. Write a note on Prebiotics and probiotics
40. Write the mode of action and biological uses of catalase and glutathione.
41. Explain the role of free radicals in pathogenesis of atherosclerosis
42. What are dietary fibres? Explain their importance as functional foods.
43. Differentiate between polyphenols and flavonoids.
44. Explain the process of lipid peroxidation and its impact.
45. Explain the role of free radicals in pathogenesis of diabetes mellitus
46. Define and classify nutraceuticals with examples
47. What are the Sources and functions of proteins as functional foods?
48. Role of cereals as functional foods.
49. What are complex carbohydrates? Give examples
50. Outline the process of aging and mention nutraceuticals used to reduce it.
51. What are the Sources and functions of proteins as functional foods?
52. What are synthetic antioxidants? Write their mode of action and uses
53. Role of cereals as functional foods.
54. Explain briefly the US FDA Food safety modernization act
55. Define and classify nutraceuticals with examples.
56. What are the Sources and functions of proteins as functional foods?
57. Write a note on prebiotics and probiotics.
58. Explain about the free radicals mediated damage of carbohydrates and nucleic acids.
59. What are dietary fibres? Explain their importance as functional foods.
60. Explain the role of free radicals in pathogenesis of ischemic heart disease.
61. Write the mode of action and biological uses of catalase and glutathione.
62. Describe the organizational structure of food safety and standards authority of India.
63. Describe briefly the principles of HACCP principles on food safety.
64. Define and classify nutraceuticals with examples
65. What are the Sources and functions of proteins as functional foods?
66. Role of cereals as functional foods.
67. What are complex carbohydrates? Give examples
68. Outline the process of aging and mention nutraceuticals used to reduce it.
69. What are the Sources and functions of proteins as functional foods?
70. What are synthetic antioxidants? Write their mode of action and uses
71. Role of cereals as functional foods.
72. Explain briefly the US FDA Food safety modernization act.
73. Write about the phytoconstituents and health benefits of spirulina and broccoli.
74. Role of minerals as functional food.
75. What are carotenoids? Write the functions of carotenoids.
76. Explain the process of lipid peroxidation and its impact.
77. What are dietary fibres? Explain their importance as functional foods.
78. Write brief note on functional foods for prevention of atherosclerosis and cancer.
79. Explain the role of free radicals in pathogenesis of kidney disease.
80. Explain briefly the US FDA Food safety modernization act.
81. Write the functions of food safety and standards authority of India.
82. Write the sources, phyto-constituents and uses of Gingko.
83. Differentiate between polyphenols and flavonoids.
84. What are the Sources and functions of proteins as functional foods?
85. Explain the mode of production of free radicals in cells.
86. Explain the role of complex carbohydrates as functional foods along with examples.
87. Enlist various endogenous and exogenous antioxidants. Write the biological role of superoxide dismutase.
88. Write the mode of action and biological uses of catalase and glutathione.
89. Describe the organizational structure of food safety and standards authority of India.
90. Describe briefly the principles of HACCP principles on food safety.

**SHORT ANSWERS 10 X 02 = 20 Marks**

1. Define health and public health.
2. Write the uses of oats as functional food.
3. What are natural functional foods?
4. Write health benefits of α and β-Carotene.
5. Write the health benefits of dietary fibres.
6. What are reactive oxygen species? Give examples.
7. Mention uses of vitamin C.
8. What food standards does AGMARK specify?
9. Write importance of MPO.
10. Write types of food adulteration.
11. Write the health benefits of garlic.
12. Write the uses of wheat bran as functional food.
13. Write health benefits of Quercitin.
14. Write the uses of sea food as functional food.
15. What are complex carbohydrates? Give examples.
16. Mention the methods used for estimation of free radicals.
17. Mention uses of α Lipoic acid.
18. Write the role of FPO.
19. How can the food adulteration be prevented.
20. What are the purposes of FSSAI.
21. What are dietary supplements? Give examples.
22. Write health benefits of Xanthophylls.
23. Write the uses of rice bran as functional food.
24. Write health benefits of Catechins.
25. Write the health benefits of complex carbohydrates.
26. What are reactive oxygen species? Give examples.
27. Write the biological actions of superoxide dismutase.
28. What are regulations under which FSSAI function in India?
29. Write types of food adulteration.
30. Write importance of MPO.
31. Write health benefits of Lycopene.
32. Define health and public health.
33. Write the health benefits of complex carbohydrates.
34. What are natural functional foods?
35. What are complex carbohydrates? Give examples.
36. Write the biological actions of glutathione
37. Enlist various free radicals
38. Write importance of MPO.
39. Mention uses of melatonin
40. Write examples of food adulterations.
41. What are the purposes of FSSAI?
42. Write the uses of rice bran as functional food
43. List out nutraceuticals for child health.
44. Write the biological actions of catalase
45. What are free radicals? Give examples
46. Write the health benefits of spirulina.
47. Explain the role of complex carbohydrates as functional foods along with examples.
48. What are reactive oxygen species? Give examples.
49. Write the role of FPO.
50. Mention functional foods for prevention of ischemic heart disease
51. Write the health benefits of garlic.
52. Write health benefits of Catechins.
53. Write the uses of oats as functional food.
54. What are natural functional foods?
55. What are dietary fibres? Give examples.
56. Mention the methods used for estimation of free radicals.
57. Mention uses of vitamin C.
58. Write types of food adulteration.
59. What food standards does AGMARK specify?
60. What are the purposes of FSSAI.
61. Write the nutraceuticals used for weight control.
62. Write health benefits of Catechins.
63. Write the uses of rice bran as functional food.
64. Write health benefits of leutin.
65. Mention the methods used for estimation of free radicals.
66. What are complex carbohydrates? Give examples.
67. Mention uses of α Lipoic acid.
68. Write the importance of Meat Product Order (MPO) on food safety.
69. What are regulations under which FSSAI function in India?
70. How food adulteration is prevented.
71. What is osteoarthritis? Mention its causes.
72. Role of minerals as functional food.
73. What are natural functional foods?
74. Write health benefits of Quercitin.
75. What are reactive oxygen species? Give examples.
76. What are reactive oxygen species? Give examples.
77. Mention uses of melatonin.
78. Give examples of food adulterations.
79. What food standards does AGMARK specify?
80. What is the purpose of FSSAI.
81. Write the dietary supplements used to prevent ageing.
82. Write health benefits of Rutins.
83. Write health benefits of α and β-Carotene.
84. Write the uses of sea food as functional food.
85. Write the health benefits of dietary fibres.
86. Mention the methods used for estimation of free radicals.
87. Write the biological actions of catalase.
88. Write the importance of Meat Product Order (MPO) on food safety.
89. What are regulations under which FSSAI function in India?
90. Write the role of FPO.
91. What are functional foods
92. Write health benefits of Rutins
93. Write the uses of oats as functional food
94. What are dietary fibres? Give examples.
95. Write health benefits of Lycopene
96. Mention uses of vitamin E
97. Write the health benefits of dietary fibres
98. Explain briefly the history of nutraceutical regulations.
99. Write importance of MPO.
100. Write guidelines for application of HACCP.