

Time:3Hrs

Marks :75

Note: All Questions are compulsory

Q. I Multiple Type Question (Each MCQ Carries 1 mark) 20M

1 Which of the following contain maximum lycopene content? 1M

- a Tomato paste
- b Fresh tomatoes
- c Tomato sauce
- d Tomato juice

2 Grapes are considered functional foods because they contain these substances; 1M

- a Proteins
- b Carbohydrates
- c Phytochemicals
- d None of the above

3 Which of the following is the best source for omega-3 fatty acids? 1M

- a Corn oil
- b Wheat Products
- c Pork
- d Sardines

4 Which of the following is defined by Dr Defelice as food, or parts of foods, that Provide medical or health benefits, including the prevention and treatment of disease? 1M

- a Nutraceutical
- b A functional food
- c Pharmaceuticals
- d NSAID

5 Carotenoid can be primarily stored in..... 1M

- a Adipose tissue
- b Liver
- c Adrenals
- d Testes

6 The Directorate of food and Drug Administration, Government of Goa was established in..... 1M

- a November 1990
- b November 1992
- c November 1993
- d November 1991

- 7 Name of the phenolic compound present in tea? 1M**
- a Flavonoids
 - b Lignans
 - c stilbene
 - d Neolignans
- 8 What are probiotics? 1M**
- a killed microorganism that provide health benefits
 - b Live microorganism that provides health benefits
 - c Bacterial that provides health benefits
 - d Live microorganism that could be harmful
- 9 Which of these groups of chemicals include only examples of polyphenols? 1M**
- a Flavonoids, stilbenes and lignans
 - b Carotenoids, Flavones and anthocyanins
 - c Phytoestrogens, folate and ubiquinone
 - d Quercetin, glutathione and tannins
- 10 Source of free radicals are..... 1M**
- a Mitochondria
 - b Xanthine oxidase
 - c Peroxisomes
 - d All of the above
- 11 The most biologically active form of vitamin E is..... 1M**
- a all rac alpha tocopherol
 - b all rac alpha tocotrienol
 - c RRR alpha tocopherol
 - d RRR gamma tocopherol
- 12 Which of the following statements regarding free radicals is false? 1M**
- a Free radicals carry a single, unpaired electron
 - b free radicals are produced as the result of homolytic cleavage of a covalent bond
 - c A free radical can interact with a molecule to generate a new free radical species
 - d Free radicals do not occur naturally in the body
- 13 Concept of oxidative stress is occurring due to 1M**
- a Imbalance between free radicals' production and antioxidant defence
 - b free radical generation
 - c Antioxidant defence only
 - d All of the above

14 Promote general awareness about food safety and standards is the function of..... 1M

- a MFPO
- b FPO
- c FSSAI
- d FDA

15 Which of the following does not have antioxidant qualities? 1M

- a Vitamin E
- b Vitamin K
- c Calcium
- d Omega 3 Fatty acids

16 Which one of these is complex carbohydrate? 1M

- a Fiber
- b Starch
- c Both (a) and (b)
- d Sugar

17 Which of this is not PUFA? 1M

- a Linolenic acid
- b Oleic acid
- c Linoleic acid
- d Arachidonic acid

18 Tea is a major dietary source of which one of the following trace elements? 1M

- a Manganese
- b Zinc
- c Copper
- d Selenium

19 Food safety and standards act, 2006 passed by Indian parliaments and notified on: 1M

- a 23rd July 2006
- b 23rd June 2006
- c 23rd August 2006
- d 23rd November 2006

20 In 1989, Nutraceutical is a term coined by 1M

- a Stephen L
- b Stephen L george
- c Stephen L fleming
- d None of these

Q. II Answer any TWO of the following 20M

A 1 Define Public Health. Write in details about the nutraceuticals and dietary supplements used in maternal and child nutrition. 5M

2 Classify Carotenoids with examples and write about their occurrence? 5M

- B** 1 Explain the mode of production of free radicals in cell. **5M**
2 Describes the free radicals induced pathogenesis of atherosclerosis. **5M**
- C** Explain about processing, storage and interaction of various environmental factor on the potential of nutraceuticals. **10M**
- Q. III** **Answer any SEVEN of the following** **35M**
- a Define Nutraceuticals. Classify Nutraceuticals depending upon their characteristics and major uses. **5M**
- b Write the medicinal uses, health benefits and marker compound of Gingko. **5M**
- c Write the pathogenesis and Nutraceuticals used for the control of Hypertension and stress. **5M**
- d Write a note on Probiotics. **5M**
- e What is the antioxidant? Explain the biological role of endogenous enzymatic antioxidant. **5M**
- f Classify Flavonoids with example and about their occurrences. **5M**
- g What are the dietary fibres? Explain their importance as functional foods. **5M**
- h Explain about complex carbohydrate with examples. **5M**
- i Classify Tocopherol with examples and explain their biological properties. **5M**
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