

QB365 Question Bank Software Study Materials

Nutrition and Health Important 2,3 & 5 Marks Questions With Answers (Book Back and Creative)

9th Standard

Science

Total Marks : 75

2 Marks

10 x 2 = 20

- 1) Differentiate : Kwashiorkar from Marasmus

Answer :

Kwashiorkar	Marasmus
1. It is a protein deficiency disease.	It is a carbohydrate deficiency disease.
2. It affects the children between 1-5 years of age.	It affects the infants below the age of one.

- 2) Differentiate: Macronutrients from micronutrients.

Answer :

Macronutrients	Micronutrients
1. Calcium, sodium, potassium are macronutrients.	Iron and iodine are micronutrients.
2. Nutrients required for growth and development of the body in large quantities.	Nutrients required for growth and development of the body in small quantities.

- 3) What is an adulterant?

Answer : Adulterants are undesirable substances added to the food against the food safety standards.

- 4) Name any two naturally occurring toxic substances in food.

Answer : Poisonous mushrooms, prussic acid in seeds of apple and cherry and peach pits, marine toxins, fish oil poisoning are the naturally occurring toxic substances.

- 5) What factors are required for the absorption of Vitamin D from the food by the body?

Answer : Deficiency of disorder disease is the factor required for the absorption of vitamin D.

- 6) What is the basic necessity of life?

Answer : Food is the basic necessity of life.

- 7) Name some Natural Preservatives.

Answer : Salt sugar and oil.

- 8) List the essential amino acid present in our body.

Answer : There are nine essential amino acids obtain from their diet. They are phenylalanine, valine, threonine, tryptophan, methionine, leucine, isoleucine, lysine and histidine.

- 9) Give the name of essential fatty acids.

Answer : i) Alpha-linolenic acid (omega 3 fatty acid)
ii) Linolenic acid (omega 6 fatty acid)

- 10) Name the fat and water soluble vitamins.

Answer : i) Fat soluble vitamins are A, D, E, K.

ii) Water soluble vitamins are B, C.

3 Marks

10 x 3 = 30

- 11) Write any one function of the following minerals
a) Calcium b) Sodium
c) Iron d) Iodine

Answer :

(a) Calcium	Constituent of bones and enamel of teeth, clotting of blood and controls muscle contraction.
(b) Sodium	Maintains fluid balance and involved in neurotransmission
(c) Iron	Important component of haemoglobin
(d) Iodine	Formation of thyroid hormones.

- 12) Explain any two methods of food preservation.

Answer : 1. Drying:

It is the process of removal of water or moisture content in the food. It can be done either by sun-drying (or) vacuum drying or hot air drying. It inhibits the growth of bacteria, yeasts and moulds.

2. Smoking:

In this process, food products like meat and fish are exposed to smoke. The drying action of the smoke tends to preserve the food.

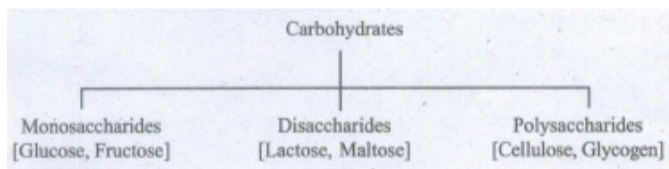
- 13) What are the effects of consuming adulterated food?

Answer : The effects of consuming adulterated food:

- i) Headache.
- ii) Stomach disorder.
- iii) Major health problems
- iv) Liver problem

- 14) Mention the classes of Carbohydrates with example.

Answer :



- 15) Why Vitamin D is called as 'Sunshine' Vitamin?

Answer : Human skin can synthesize vitamin D when exposed to sunlight. When sun rays fall on the skin dehydrocholesterol is converted into vitamin D.

- 16) What are the sources of Vitamin B₁?

Answer : Whole grains, yeast, eggs, liver and sprouted pulses.

- 17) What do you know about vitamin B₁₂?

Answer :

Other name	Sources	Disorder	Symptom
Cyanobalamin	Milk, Meat, liver, Pulses, cereals and fish.	Pernicious anaemia	Decrease in RBC production degeneration of spinal cord.

- 18) Why is food preserved?

Answer : Food is preserved to

1. increase the shelf life of food.
2. retain the colour, texture, flavour, and nutritive value.
3. increase food supply.
4. decrease wastage of food.
5. add variety to the food.

19) What is irradiation?

Answer : Food irradiation is the process of exposing food to optimum levels of ionizing radiations like X-rays, gamma rays or UV rays to kill harmful bacteria.

20) What is the use of inert gas?

Answer : Nitrogen gas is filled in air-tight packets of potato wafers and other food products thus preventing the growth of fungus and insects in them.

5 Marks

5 x 5 = 25

21) How are vitamins useful to us? Tabulate the sources, deficiency diseases and symptoms of fat soluble vitamins

Answer : Vitamins are vital nutrients, required in minute amounts to perform special functions to maintain a healthy body. It is deficiency in the food it cause many diseases.

Vitamins	Sources	Deficiency disorders	Symptoms
Vitamin A	Carrot, papaya leaf vegetable, egg yolk, liver	Xerophthalmia Nyctalopia(night blindness)	Dryness of cornea unable to see in the night (dim light) scaly skin
Vitamin D	Egg, liver, diary products, fish, synthesized by the sunlight	Rickets(in children)	Bow legs, defective ribs development of pigeon chest.
Vitamin E	Wheat wheat, vegetable oil, meat, milk	Sterility in rats, Reproductive abnormalities	Sterility
Vitamin K	Leafy vegetables, soyabeans, milk	Blood clotting is prevented	Excessive bleeding due to delayed blood clotting.

22) Explain the role of food control agencies in India.

Answer : Role of Food control agencies in India:

- a) FCI - i) Effective price support operations for safeguarding the interest of farmers.
ii) Regulate the market price to provide food grains to consumers at reliable price.
- b) ISI - Certifies industrial products like electrical appliances like switches, wiring cables, electric motor and kitchen appliances etc.
- c) AGMARK - Certifies agricultural and livestock products like cereals, essential oils, pulses, honey, butter etc.
- d) FPO - Certifies the food products like juice, jams, sauce, canned fruits and vegetables, pickles etc.
- d) FSSAI - Responsible for protecting and promoting the public health through regulation and supervision of food safety.

23) Differentiate between naturally ripened fruit and artificially ripened fruit

Answer :

Properties	Naturally ripened fruit	Artificially ripened fruit
Colour	Attractive, but not uniformly coloured	Uniformly coloured but very attractive
Aroma	Good	Mild
Firmness	Good	Fair to some extent
Taste	Sweet and pleasant	Though appears ripe, inner core is sour
Shelf life	Long	Short. Black blotches appear on fruit after two to three days

24) Give an account of Natural preservatives.

Answer : (i) Food can be preserved by adding natural preservatives.

(ii) **Addition of salt:** It is one of the oldest methods of preserving food. Addition of salt removes the moisture content in the food by the process of osmosis. This prevents the growth of bacteria and reduces the activity of microbial enzymes. Meat, fish, gooseberry, lemon and raw mangoes are preserved by salting. Salt is also used as a preservative in pickles, canned foods etc.

(iii) **Addition of sugar:** Sugar/Honey is added as a preservative to increase the shelf life of fruits and fruit products like jams, jellies, squash, etc. The hygroscopic nature of sugar/ honey helps in reducing -the water content of food and also minimizing the process of oxidation in fruits.

(iv) **Addition of oil:** Addition of oil in pickles prevents the contact of air with food. Hence microorganisms cannot grow and spoil the food.

25) Give some simple techniques used to detect adulterants at home.

Answer : Milk: Place a drop of milk as a slanting polished surface pure milk flows slowly leaving a trail behind while the milk adulterated with water will flow fast.

Honey: Dip a cotton wick in honey and light it with a match stick- Pure honey burns while adulterated honey with sugar solution gives a cracking sound.

Sugar: Dissolve sugar in water. If chalk powder is added as an adulterant, it will settle down.

Coffee powder: Sprinkle a few pinches of coffee powder in a glass of water. Coffee powder floats. If it is adulterated with tamarind powder it settles down.

Food grains: They have visible adulterants like marble, sand grit stones etc.. These are remove by sorting, hand picking, washing etc...