

Food Culture and Human Physiology

Nutrition Science · Answer Key · 18 Questions

1. Which organ is primarily responsible for the detoxification of substances consumed through diet?

- A) Kidneys
- B) Liver**
- C) Pancreas
- D) Gallbladder

2. What is the primary function of dietary fiber in the human digestive system?

- A) Providing immediate glucose
- B) Reducing blood clotting
- C) Assisting in bowel regularity**
- D) Synthesizing vitamin C

3. Which mineral is essential for the production of hemoglobin, the protein in red blood cells that carries oxygen?

- A) Iron**
- B) Calcium
- C) Magnesium
- D) Potassium

4. What does the Body Mass Index (BMI) primarily measure?

- A) Total body muscle percentage
- B) Relationship between weight and height**
- C) Metabolic rate
- D) Bone density

5. Which vitamin is synthesized by the human body through exposure to ultraviolet B (UVB) radiation from the sun?

- A) Vitamin A
- B) Vitamin B12
- C) Vitamin D**
- D) Vitamin K

6. What is the main role of insulin in the human body?

- A) Breaking down proteins
- B) Regulating blood glucose levels**
- C) Stimulating digestion
- D) Filtering waste

7. Which nutrient is considered the primary source of energy for the human brain?

A) Glucose

- B) Protein
- C) Fiber
- D) Saturated fat

8. What is the recommended daily intake of sodium for adults to reduce the risk of hypertension, according to the WHO?

A) Less than 2 grams

- B) Exactly 5 grams
- C) More than 10 grams
- D) 8 to 12 grams

9. Which type of fat is generally associated with an increased risk of cardiovascular disease?

- A) Monounsaturated fat
- B) Polyunsaturated fat

C) Trans fat

- D) Omega-3 fatty acids

10. What is the primary function of electrolytes like sodium and potassium in the body?

A) Energy storage

B) Fluid balance and nerve signaling

- C) Bone strengthening
- D) Red blood cell production

11. Which enzyme in the saliva begins the chemical digestion of carbohydrates?

A) Lipase

B) Amylase

- C) Protease
- D) Pepsin

12. What is the primary biological purpose of consuming essential amino acids?

A) To build and repair tissues

- B) To provide long-term energy storage
- C) To lower cholesterol levels
- D) To increase skin elasticity

13. The conversion of food into energy within the cells is known as what?

- A) Digestion
- B) Metabolism**
- C) Absorption
- D) Excretion

14. Which organ produces bile to assist in the digestion and absorption of fats?

- A) Liver**
- B) Stomach
- C) Small intestine
- D) Large intestine

15. What is the main health benefit of consuming fermented foods like yogurt or kimchi?

- A) Providing high-dose vitamin B12
- B) Enhancing gut microbiome diversity**
- C) Reducing the need for sleep
- D) Eliminating the need for water

16. Which condition is caused by a chronic deficiency of vitamin C?

- A) Rickets
- B) Scurvy**
- C) Anemia
- D) Goiter

17. What happens to excess protein that is consumed by the body and not used for tissue repair?

- A) It is converted into muscle tissue automatically
- B) It is stored as fat or excreted**
- C) It is converted into vitamin D
- D) It is stored in the liver as glycogen

18. Which nutrient is vital for the proper function of the human thyroid gland?

- A) Iodine**
- B) Zinc
- C) Copper
- D) Selenium