

Advanced Health Knowledge for Adolescents

Health Education · Answer Key · 20 Questions

1. Which hormone is primarily responsible for the stimulation of erythropoiesis in the human body?

- A) Erythropoietin**
- B) Thrombopoietin
- C) Calcitonin
- D) Aldosterone

2. What is the chemical name for the form of Vitamin D that is synthesized in the skin upon exposure to ultraviolet B radiation?

- A) Ergocalciferol
- B) Cholecalciferol**
- C) Phylloquinone
- D) Tocopherol

3. In the human digestive system, where does the majority of nutrient absorption take place?

- A) Stomach
- B) Duodenum
- C) Jejunum**
- D) Large intestine

4. Which mineral is a crucial component of the structure of hemoglobin molecules within red blood cells?

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

5. What is the technical term for the physiological process of programmed cell death?

- A) Necrosis
- B) Apoptosis**
- C) Mitosis
- D) Autolysis

6. Which phase of the menstrual cycle occurs immediately after ovulation and is characterized by the dominance of progesterone?

- A) Follicular phase
- B) Luteal phase**
- C) Menstrual phase
- D) Proliferative phase

7. What is the primary function of the myelin sheath surrounding an axon in a neuron?

- A) To produce neurotransmitters
- B) To increase the speed of impulse conduction**
- C) To synthesize protein
- D) To store glucose

8. Which organ is responsible for the synthesis of urea from ammonia during the process of protein metabolism?

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

9. What is the recommended daily intake of dietary fiber for adolescents according to most global health organizations?

- A) 5-10 grams
- B) 15-20 grams
- C) 25-30 grams**
- D) 40-50 grams

10. Which specific immunoglobulin is most abundant in the human body and is capable of crossing the placenta?

- A) IgA
- B) IgE
- C) IgM
- D) IgG**

11. What is the primary site of ribosome synthesis within a eukaryotic cell?

- A) Nucleolus**
- B) Golgi apparatus
- C) Endoplasmic reticulum
- D) Lysosome

12. Which condition is defined by an abnormal curvature of the spine, often identified during the adolescent growth spurt?

- A) Kyphosis
- B) Lordosis
- C) Scoliosis**
- D) Spondylolysis

13. What is the chemical composition of the primary energy currency molecule used by human cells?

- A) Adenosine monophosphate
- B) Adenosine diphosphate
- C) Adenosine triphosphate**
- D) Cyclic adenosine monophosphate

14. Which vitamin deficiency is most commonly associated with the development of scurvy?

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

15. In the context of the cardiovascular system, what does the 'QRS complex' represent on an electrocardiogram?

- A) Atrial depolarization
- B) Ventricular repolarization
- C) Atrial repolarization
- D) Ventricular depolarization**

16. Which hormone, produced by adipose tissue, plays a key role in the long-term regulation of body weight and appetite?

- A) Ghrelin
- B) Leptin**
- C) Insulin
- D) Glucagon

17. What is the range of human hearing typically defined in Hertz (Hz)?

- A) 5 to 15,000 Hz
- B) 20 to 20,000 Hz**
- C) 50 to 25,000 Hz
- D) 100 to 30,000 Hz

18. Which nitrogenous base is found in RNA but not in DNA?

- A) Cytosine
- B) Guanine
- C) Thymine

D) Uracil

19. What is the primary function of the alveoli in the human respiratory system?

- A) Air filtration

B) Gas exchange

- C) Mucus production
- D) Sound production

20. Which electrolyte is the most abundant cation in the intracellular fluid of human cells?

- A) Sodium
- B) Calcium

C) Potassium

- D) Chloride