

Control and Coordination in Living Organisms

Biology · Answer Key · 26 Questions

1. What are the two main systems responsible for control and coordination in animals?

- A) Skeletal and Muscular Systems
- B) Nervous and Endocrine Systems**
- C) Circulatory and Respiratory Systems
- D) Digestive and Excretory Systems

2. Which plant hormone is primarily responsible for promoting cell elongation?

- A) Gibberellins
- B) Cytokinins
- C) Absciscic Acid
- D) Auxins**

3. What is a reflex action?

- A) A conscious decision to act
- B) A rapid, involuntary response to a stimulus**
- C) A slow, growth-dependent movement
- D) A voluntary action controlled by the brain

4. Which part of the human brain is responsible for precision of voluntary actions and maintaining posture and balance?

- A) Cerebrum
- B) Cerebellum**
- C) Medulla
- D) Hypothalamus

5. What is phototropism in plants?

- A) Growth in response to gravity
- B) Growth in response to touch
- C) Growth in response to light**
- D) Growth in response to water

6. Adrenaline is secreted from which glands?

- A) Thyroid glands
- B) Pituitary glands
- C) Adrenal glands**
- D) Pancreas

7. What is the function of insulin?

- A) Regulates carbohydrate metabolism
- B) Regulates protein metabolism
- C) Regulates blood sugar levels**
- D) Stimulates growth

8. Which hormone is responsible for the development of male sex characteristics?

- A) Oestrogen
- B) Progesterone
- C) Testosterone**
- D) Thyroxin

9. What is geotropism?

- A) Growth towards light
- B) Growth away from gravity
- C) Growth towards water
- D) Growth in response to gravity**

10. What is the role of the spinal cord in reflex actions?

- A) It is the primary thinking part of the brain
- B) It processes complex thoughts and decisions
- C) It acts as a relay center for reflex arcs**
- D) It secretes hormones

11. Which hormone helps in the growth of the stem and is produced by fruits and seeds?

- A) Absciscic Acid
- B) Cytokinins
- C) Gibberellins**
- D) Auxins

12. What happens if there is a deficiency of growth hormone in children?

- A) Gigantism
- B) Dwarfism**
- C) Goitre
- D) Diabetes

13. Iodine is essential for the synthesis of which hormone by the thyroid gland?

- A) Adrenaline
- B) Insulin
- C) Thyroxin**
- D) Growth Hormone

14. What is the function of cytokinins in plants?

- A) Inhibiting growth
- B) Promoting cell division and growth**
- C) Promoting cell elongation
- D) Causing wilting of leaves

15. The movement of the sensitive plant (Chhui-Mui) in response to touch is an example of:

- A) Movement due to growth
- B) Nastic movement (independent of growth)**
- C) Tropism
- D) Hydrotropism

16. What is the primary role of the fore-brain in humans?

- A) Controlling involuntary actions like breathing
- B) Maintaining balance and posture
- C) Receiving sensory impulses and thinking**
- D) Regulating blood sugar

17. How do plant cells change shape to cause movement?

- A) By changing their protein arrangement
- B) By changing the amount of water in them**
- C) By secreting chemicals
- D) By electrical impulses

18. Which hormone inhibits growth and causes wilting of leaves?

- A) Gibberellins
- B) Auxins
- C) Cytokinins
- D) Absciscic Acid**

19. What is the function of the cerebellum?

- A) Regulating breathing and heart rate
- B) Coordinating voluntary movements and balance**
- C) Processing sensory information
- D) Controlling hunger and thirst

20. The growth of a pollen tube towards the ovule is an example of:

- A) Phototropism
- B) Geotropism
- C) Hydrotropism
- D) Chemotropism**

21. Which glands are stimulated by the hypothalamus to release hormones?

- A) Thyroid and Adrenal glands
- B) Pituitary gland**
- C) Pancreas and Ovaries
- D) Pineal and Thymus glands

22. What is the function of thyroxin hormone?

- A) Regulates blood sugar
- B) Stimulates growth
- C) Regulates metabolism**
- D) Controls stress response

23. What is the term for the mechanism that regulates the secretion of hormones based on their levels in the body?

- A) Stimulation
- B) Feedback mechanism**
- C) Receptor
- D) Impulse

24. In males, puberty changes are due to the secretion of which hormone?

- A) Oestrogen
- B) Progesterone
- C) Testosterone**
- D) Growth Hormone

25. Which part of the hind-brain controls involuntary actions like salivation and vomiting?

- A) Cerebellum
- B) Pons
- C) Medulla**
- D) Hypothalamus

26. What is the main function of the nervous system in animals?

- A) Producing hormones
- B) Providing structural support
- C) Transmitting information via electrical impulses**
- D) Regulating metabolism