

33 Multiple choice questions

1. specialised cells or groups of nerve endings that detect sensory stimuli
 - a. chemoreceptors
 - b. response
 - c. effector
 - d. receptors

2. part of the brain involved in homeostatic mechanisms such as temperature regulation and water balance in mammals
 - a. hypothalamus
 - b. catalysts
 - c. ectothermic
 - d. endothermic

3. a group of sensory receptors and associated non-sensory tissue specialised for detecting stimuli in the environment
 - a. receptors
 - b. nerves
 - c. response
 - d. sense organs

4. processes which maintain a stable internal environment in an organism, despite fluctuations in the external environment
 - a. homeostasis
 - b. hypothalamus
 - c. metabolism
 - d. receptors

5. any non-protein molecule needed by an enzyme for its activity
 - a. effector
 - b. cofactor
 - c. receptors
 - d. denature

6. the view of enzyme functioning based on the idea that an enzyme is not rigid, but alters shape slightly when it binds with a substrate
 - a. receptors
 - b. induced-fit model
 - c. denature
 - d. lock-and-key model

7. a molecule upon which an enzyme acts
 - a. set point
 - b. response
 - c. denature
 - d. substrate

8. bundles of sensory or motor fibres of neurons which act as messengers, transmitting impulses
 - a. anabolic
 - b. response
 - c. enzymes
 - d. nerves

9. the maximum level at which all available enzymes are being used to catalyse a chemical reaction
 - a. active site
 - b. catabolic
 - c. set point
 - d. saturation point

10. specialised sensory nerve receptors that receive and respond to stimuli originating from within the body
 - a. thermoreceptors
 - b. chemoreceptors
 - c. receptors
 - d. interoreceptors

11. parts of the nervous system that include the brain and spinal cord
 - a. central nervous system
 - b. catalysts
 - c. heat-loss centre
 - d. control centre

12. the part of an enzyme to which the substrate binds
 - a. stimuli
 - b. ectothermic
 - c. nerves
 - d. active site

13. part of the hypothalamus in the brain that triggers responses in the body to generate heat
 - a. heat-loss centre
 - b. control centre
 - c. heat-gain centre
 - d. saturation point

14. the view of enzyme functioning based on the idea that an enzyme is rigid and reciprocally shaped to fit a substrate like a key fits a lock
 - a. induced-fit model
 - b. enzymes
 - c. lock-and-key model
 - d. active site

15. an animal that depends on an external source for heat energy
 - a. receptors
 - b. endothermic
 - c. catabolic
 - d. ectothermic

16. part of the hypothalamus in the brain that triggers responses in the body to cool down
 - a. heat-gain centre
 - b. interoreceptors
 - c. heat-loss centre
 - d. control centre

17. the sum of the chemical processes occurring within a living cell or organism
 - a. catabolic
 - b. metabolism
 - c. anabolic
 - d. set point

18. the change of shape of a protein, due to heat or changed pH, causing it to lose its ability to function
 - a. receptors
 - b. denature
 - c. response
 - d. enzymes

19. any behaviour of a living organism that results from a stimulus
 - a. response
 - b. nerves
 - c. receptors
 - d. set point

20. biological protein catalysts produced by cells, responsible for all chemical reactions in living organisms
 - a. denature
 - b. enzymes
 - c. stimuli
 - d. nerves

21. an enzyme that can work on only one particular substrate molecule, because the active site is reciprocally shaped to bind with that molecule
 - a. ectothermic
 - b. substrate-specific
 - c. saturation point
 - d. substrate

22. an animal whose heat is generated through its own metabolic activities
 - a. endothermic
 - b. hypothalamus
 - c. enzymes
 - d. ectothermic

23. process controller that detects incoming information and relays outgoing information to regulate functioning
 - a. heat-loss centre
 - b. heat-gain centre
 - c. interoreceptors
 - d. control centre

24. the organ, gland or muscle that carries out a response when activated by nerve endings as a result of a stimulus
- denature
 - effector
 - cofactor
 - receptors
25. breaking down complex molecules into simpler ones, releasing energy
- metabolism
 - anabolic
 - catabolic
 - catalysts
26. any one of a number of quantities (such as temperature and pH) which the body tries to keep steady at a particular value during homeostasis
- metabolism
 - stimuli
 - response
 - set point
27. changes in the environment detected by the sensory organs
- anabolic
 - catabolic
 - denature
 - stimuli
28. sensory cells in an organism that detect chemical stimuli
- chemoreceptors
 - thermoreceptors
 - receptors
 - interoreceptors
29. sensory cells or organs that detect heat or cold
- thermoreceptors
 - receptors
 - interoreceptors
 - chemoreceptors

30. a self-regulatory biological system where a response counteracts the stimulus, reducing its effect so that a balance is maintained
- nerves
 - negative feedback
 - ectothermic
 - active site
31. fat present in many hibernating mammals with the purpose of generating body heat
- set point
 - cofactor
 - brown fat
 - response
32. substances that speed up reversible chemical reactions
- anabolic
 - cofactor
 - catalysts
 - catabolic
33. reactions that build complex molecules from simpler ones, requiring energy input
- stimuli
 - anabolic
 - catabolic
 - metabolism