

CHAPTER 7

ANSWERS

Multiple Choice Questions

- | | | | |
|----------------|----------------|----------------|----------------|
| 1. (a) | 2. (c) | 3. (d) | 4. (b) |
| 5. (d) | 6. (c) | 7. (c) | 8. (b) |
| 9. (b) | 10. (d) | 11. (c) | 12. (d) |
| 13. (b) | 14. (b) | 15. (a) | 16. (c) |
| 17. (c) | 18. (b) | 19. (a) | 20. (c) |
| 21. (b) | 22. (c) | 23. (d) | 24. (b) |
| 25. (c) | 26. (a) | 27. (b) | 28. (c) |
| 29. (d) | 30. (b) | 31. (c) | 32. (d) |
| 33. (d) | | | |

Short Answer Questions

- 34.** (a) Sensory neuron
(b) Spinal cord (CNS)
(c) Motor neuron
(d) Effector = Muscle in arm
- 35.** (a) Auxin
(b) Gibberellin
(c) Cytokinin
(d) Absciscic acid
- 36.** (a) Pineal gland
(b) Pituitary gland
(c) Thyroid
(d) Thymus
- 37.** Figure (a) is more appropriate because in a plant shoots are negatively geotropic hence, grow upwards and roots are positively geotropic so grow downwards.

- 38.** (a) Dendrite
(b) Cell body
(c) Axon
(d) Nerve ending
- 39.** (a) — (iii) (b) — (iv)
(c) — (i) (d) — (ii)
- 40.** The directional growth movements of plants due to external stimuli are called tropic movement. It can be either towards the stimulus, or away from it. For example, in case of phototropic movement, shoots respond by bending towards light while roots respond by bending away from it.
- 41.** (a) When iodine intake is low, release of thyroxin from thyroid gland will be less by which protein, carbohydrate and fat metabolisms will be affected.
(b) A person might suffer from goitre in case of iodine deficiency in the body.
- 42.** When an electrical signal reaches the axonal end of one neuron it releases certain chemical substances that cross the synapse and move towards the dendritic end of next neuron generating another electrical signal.
- 43.** (a) Oestrogen
(b) Growth hormone
(c) Insulin
(d) Thyroxin
- 44.** (a) Pituitary
(b) Pancreas
(c) Adrenal
(d) Testes

Long Answer Questions

- 45. Hints—** Cell body
Dendrite
Axon
- 46. Hints—** Fore brain
Mid brain
Hind brain
Give its functions

47. Hints— Brain and spinal cord

Brain box and vertebral column.

48. (a) Thyroxin regulates carbohydrate, fat and protein metabolisms

(b) Insulin — regulates blood sugar

(c) Adrenaline — increases heart rate and supply of blood to various organs

(d) Growth hormone — regulates growth and development

(e) Testosterone — controls the changes of body features associated with puberty in male

49. Hints— Auxin

Gibberellin

Cytokinin

Absciscic acid

50. Hints— Definition

Nerve impulses

51. Hints— Nerve impulses

Dendritic end and axonal end

Role of hormones

Roles of blood, muscles and glands.

52. Different endocrine glands secrete different hormones. These hormones are released into blood which carry them to specific tissues or organs called target tissues or target organs. In the target tissues, hormone triggers a particular biochemical or physiological activity.

53. When an electrical signal reaches the axonal end of a neuron, it releases a chemical substance. This chemical diffuses towards the dendrite end of next neuron where it generates an electrical impulse or signal. Hence, the electrical signal is converted into a chemical signal at the axonal end. Since these chemicals are absent at the dendrite end of the neuron the electrical signal, cannot be converted into chemical signal.

