

CHAPTER – 10: Chemical Control and Coordination

1. Which gland is known as the "master gland" of the endocrine system?
 - a) Thyroid gland
 - b) Pituitary gland
 - c) Adrenal gland
 - d) Pancreas
2. What is the primary function of hormones?
 - a) Digest food
 - b) Transport oxygen
 - c) Regulate physiological processes
 - d) Produce energy
3. Which hormone regulates the body's metabolic rate?
 - a) Insulin
 - b) Thyroxine
 - c) Adrenaline
 - d) Glucagon
4. Which gland is responsible for regulating blood calcium levels?
 - a) Pituitary gland
 - b) Thyroid gland
 - c) Parathyroid gland

Adrenal gland

5. What is the function of insulin?
 - a) Increase blood sugar levels
 - b) Decrease blood sugar levels
 - c) Stimulate digestion
 - d) Regulate metabolism
6. Which hormone prepares the body for "fight or flight" responses?
 - a) Insulin
 - b) Thyroxine

- c) Adrenaline
 - d) Glucagon
7. Which gland is located on top of the kidneys?
- a) Thyroid gland
 - b) Adrenal gland
 - c) Pituitary gland
 - d) Parathyroid gland
8. Which hormone regulates the female menstrual cycle?
- a) Testosterone
 - b) Estrogen
 - c) Adrenaline
 - d) Thyroxine
9. Which gland secretes melatonin?
- a) Pineal gland
 - b) Thyroid gland
 - c) Adrenal gland
 - d) Pancreas
10. What is the role of the hypothalamus in the endocrine system?
- a) Control heart rate
 - b) Regulate blood pressure
 - c) Link the nervous system to the endocrine system
 - d) Produce insulin
11. Which hormone is produced by the pancreas to raise blood glucose levels?
- a) Insulin
 - b) Thyroxine
 - c) Glucagon
 - d) Cortisol
12. Which of the following hormones is responsible for milk production in females?
- a) Prolactin
 - b) Oxytocin

- c) Estrogen
 - d) Progesterone
13. Which hormone is responsible for the regulation of water balance in the body?
- a) Thyroxine
 - b) Aldosterone
 - c) Antidiuretic hormone (ADH)
 - d) Glucagon
14. Which hormone controls the sleep-wakecycle?
- a) Thyroxine
 - b) Melatonin
 - c) Cortisol
 - d) Estrogen
15. Which gland produces hormones thatregulate growth and development?
- a) Pancreas
 - b) Adrenal gland
 - c) Pituitary gland
 - d) Thyroid gland
16. What is the primary function of testosterone in males?
- a) Stimulate the immune system
 - b) Regulate blood sugar
 - c) Promote the development of malesecondary sexual characteristics
 - d) Control the sleep cycle
17. Which hormone is secreted during stressfulsituations?
- a) Insulin
 - b) Glucagon
 - c) Cortisol
 - d) Progesterone
18. Which of the following hormones stimulates the thyroid gland to release thyroid hormones?
- a) Growth hormone (GH)

- b) **Thyroid-stimulating hormone (TSH)**
 - c) **Follicle-stimulating hormone (FSH)**
 - d) **Adrenocorticotrophic hormone (ACTH)**
19. Which hormone regulates blood pressure by promoting sodium and water retention in the kidneys?
- a) **Adrenaline**
 - b) **Aldosterone**
 - c) **Insulin**
 - d) **Thyroxine**
20. Which hormone is released by the anterior pituitary and stimulates bone growth?
- a) **Thyroxine**
 - b) **Growth hormone (GH)**
 - c) **Cortisol**
 - d) **Glucagon**
21. Which hormone is responsible for stimulating uterine contractions during childbirth?
- a) **Oxytocin**
 - b) **Prolactin**
 - c) **Estrogen**
 - d) **Progesterone**
22. Which of the following hormones is secreted by the adrenal cortex?
- a) **Adrenaline**
 - b) **Cortisol**
 - c) **Insulin**
 - d) **Estrogen**
23. Which gland secretes thyroid-stimulating hormone (TSH)?
- a) **Thyroid gland**
 - b) **Pituitary gland**
 - c) **Adrenal gland**
 - d) **Pineal gland**
24. What is the role of the parathyroid hormone (PTH)?

- a) Regulate calcium levels in the blood
 - b) Control the sleep-wake cycle
 - c) Increase heart rate
 - d) Stimulate digestion
25. Which hormone is responsible for stimulating the release of eggs from the ovaries?
- a) Luteinizing hormone (LH)
 - b) Follicle-stimulating hormone (FSH)
 - c) Estrogen
 - d) Progesterone
26. Which hormone is involved in the regulation of circadian rhythms?
- a) Thyroxine
 - b) Cortisol
 - c) Melatonin
 - d) Glucagon
27. Which gland is primarily responsible for the regulation of metabolism?
- a) Pancreas
 - b) Adrenal gland
 - c) Thyroid gland
 - d) Pituitary gland
28. Which hormone regulates blood calcium levels by increasing calcium absorption in the intestines?
- a) Insulin
 - b) Glucagon
 - c) Parathyroid hormone (PTH)
 - d) Cortisol
29. What is the role of glucagon in the body?
- a) Decrease blood glucose levels
 - b) Increase blood glucose levels
 - c) Regulate water balance
 - d) Stimulate digestion

- 30. Which hormone is responsible for regulating the immune response and inflammation?**
- a) Glucagon
 - b) Cortisol
 - c) Insulin
 - d) Thyroxine
- 31. Which gland is responsible for secreting adrenaline and cortisol?**
- a) Thyroid gland
 - b) Adrenal gland
 - c) Pituitary gland
 - d) Parathyroid gland
- 32. Which hormone is involved in the regulation of blood pressure by promoting water reabsorption in the kidneys?**
- a) Antidiuretic hormone (ADH)
 - b) Glucagon
 - c) Aldosterone
 - d) Adrenaline
- 33. What is the function of the hormone progesterone?**
- a) Regulate blood glucose levels
 - b) Promote uterine lining development
 - c) Stimulate the release of growth hormone
 - d) Control the sleep cycle
- 34. Which hormone is primarily involved in the growth of bones and muscles?**
- a) Insulin
 - b) Growth hormone (GH)
 - c) Melatonin
 - d) Prolactin
- 35. Which hormone is secreted by the posterior pituitary gland?**
- a) Insulin
 - b) Oxytocin
 - c) Thyroxine

- d) Estrogen
36. Which gland regulates the body's biological clock?
- a) Thyroid gland
 - b) Pineal gland
 - c) Pituitary gland
 - d) Adrenal gland
37. Which hormone increases the reabsorption of sodium ions in the kidneys?
- a) Cortisol
 - b) Aldosterone
 - c) Adrenaline
 - d) Insulin
38. What is the primary function of thyroxine in the body?
- a) Stimulate digestion
 - b) Regulate metabolism
 - c) Increase blood sugar levels
 - d) Control blood calcium levels
39. Which hormone is responsible for stimulating the release of testosterone in males?
- a) Estrogen
 - b) Luteinizing hormone (LH)
 - c) Progesterone
 - d) Follicle-stimulating hormone (FSH)
40. Which gland is located at the base of the brain and regulates the secretion of hormones from other glands?
- a) Thyroid gland
 - b) Pituitary gland
 - c) Adrenal gland
 - d) Pineal gland
41. Which hormone is responsible for stimulating milk ejection during breastfeeding?
- a) Prolactin

- b) Estrogen
 - c) Oxytocin
 - d) Progesterone
42. Which hormone controls the production of sperm in males?
- a) Testosterone
 - b) Luteinizing hormone (LH)
 - c) Follicle-stimulating hormone (FSH)
 - d) Progesterone
43. What is the role of cortisol in the body?
- a) Increase blood sugar levels
 - b) Decrease blood sugar levels
 - c) Control calcium levels
 - d) Regulate water balance
44. Which hormone stimulates the release of follicle-stimulating hormone (FSH) and luteinizing hormone (LH)?
- a) Oxytocin
 - b) Thyroxine
 - c) Gonadotropin-releasing hormone (GnRH)
 - d) Estrogen
45. Which hormone regulates the body's response to stress and is produced by the adrenal glands?
- a) Insulin
 - b) Glucagon
 - c) Cortisol
 - d) Testosterone
46. What is the role of estrogen in females?
- a) Regulate calcium levels
 - b) Promote development of female secondary sexual characteristics
 - c) Stimulate the release of insulin
 - d) Control water balance
47. Which hormone regulates the secretion of sex hormones in both males and

females?

- a) Thyroxine**
- b) Follicle-stimulating hormone (FSH)**
- c) Glucagon**
- d) Prolactin**

48. What is the primary function of parathyroid hormone (PTH)?

- a) Regulate blood sugar**
- b) Increase blood calcium levels**
- c) Control metabolism**
- d) Promote growth of bones**

49. Which hormone controls the rate of metabolism in the body?

- a) Insulin**
- b) Glucagon**
- c) Thyroxine**
- d) Estrogen**

50. Which gland is responsible for the secretion of growth hormone (GH)?

- a) Thyroid gland**
- b) Pituitary gland**
- c) Adrenal gland**
- d) Pancreas**

Answer key

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|-----------|-----------|-----------|-----------|-----------|
| 1 | 2 | 3 | 4 | 5 |
| B | C | B | C | B |
| 6 | 7 | 8 | 9 | 10 |
| C | B | B | A | C |
| 11 | 12 | 13 | 14 | 15 |
| C | A | C | B | C |
| 16 | 17 | 18 | 19 | 20 |
| C | C | B | B | B |
| 21 | 22 | 23 | 24 | 25 |
| A | B | B | A | A |
| 26 | 27 | 28 | 29 | 30 |
| C | C | C | B | B |
| 31 | 32 | 33 | 34 | 35 |
| B | A | B | B | B |
| 36 | 37 | 38 | 39 | 40 |
| B | B | B | B | B |
| 41 | 42 | 43 | 44 | 45 |
| C | C | A | C | C |
| 46 | 47 | 48 | 49 | 50 |
| B | B | B | C | B |