

## Chapter- 22

# CHEMICAL COORDINATION AND INTEGRATION

### VERY SHORT ANSWER QUESTIONS (1 mark)

01. Give the expanded form of ACTH.
02. Define Graves's disease?
03. Define a chemical messenger?
04. Name the hormone secreted by the alpha-cells of Islets of Langerhans.
05. What is the cascade effect?
06. Which hormone controls  $\text{Na}^+$  and  $\text{K}^+$  metabolism in the body?
07. Name a second messenger?
08. Which hormone stimulates erythropoiesis?
09. Give full form of (a) BMR (b) ICSH
10. What is the neuroendocrine system?

### SHORT ANSWER TYPE QUESTIONS (2 marks)

11. Differentiate between hormone and neurohormone.
12. Why oxytocin is called as 'birth hormone'?
13. What is corpus luteum? How does it function as an endocrine gland?
14. Name the two major portions of the adenohypophysis. Name one hormone from each.
15. Diagrammatically represents the pituitary and hypothalamus.
16. What is the feedback or signal for the secretion of PTH? How does it increase the  $\text{Ca}^{++}$  level in the blood?
17. What is acromegaly? What happens in this disorder?

### SHORT ANSWER TYPE QUESTIONS (3 marks)

18. What is an exophthalmic goiter? Mention any four symptoms of the disorder.

19. Diagrammatically indicate the location of the various endocrine glands in the body of a human male and female.
20. Differentiate between exocrine, endocrine, and heterocrine glands. (any two points)
21. How vitamins hormone and enzymes are different from each other?
22. Name the hormone and its source which regulate the following. (a) Urinary elimination of water  
(b) Storage of glucose as glycogen (c)  $\text{Na}^+$  and  $\text{K}^+$  metabolism (d) Basal metabolic rate
23. Expand MSH. Where is it synthesized in a human body? Mention its function.
24. How steroid hormones do effects changes in their target cells.

### **LONG ANSWER TYPE QUESTIONS (5 marks)**

25. Name the T<sub>3</sub> and T<sub>4</sub> components of the thyroid gland. Describe the physiological functions and disorders of the thyroid gland.
26. Explain the mechanism of the flow chart.
27. Explain the structure of the adrenal gland and the action of the hormones from the adrenal gland on target tissues.

### **HOTS/MODEL QUESTIONS**

01. Justify 'Glucagon is a hypoglycemic hormone'.
02. How do catecholamines increase the level of blood glucose?
03. Why oxytocin called as birth hormones?
04. Why is thymus called the 'throne of immunity'?
05. Name two hormones of the hypothalamus that influences the middle lobe of the pituitary. Mention their function.
06. What will happen if thyroxine is injected into a tadpole of frog?
07. What is Addison's disease? Mention its symptoms.
08. How is the blood pressure reduced by non-endocrine glands in our bodies?
09. Differentiate Estrogen and progesterone.
10. Mention the role of  $\beta$ -cells of the pancreas.

