

## UNIT-IV : HUMAN ANATOMY AND PHYSIOLOGY-IV

# IVA. ENDOCRINE SYSTEM AND CHEMICAL CO-ORDINATION

(1 x 2) + (1 x 4) = 6 Marks

### ROOT POINTS

1. The **endocrine system** is a chemical coordination system in the body comprising of endocrine glands, their hormones and their modes of action.
2. **Endocrine glands** secrete **hormones**.
3. **Hormones** are **chemical messengers**. They are released directly into blood.
4. **Hormones** bring both **physiological** and **structural changes** in the body.
5. **Pituitary gland** controls the activities of other glands. Hence it is called **master gland**.
6. **Acromegaly** is a hormonal disorder that results when the pituitary gland produces hypersecretion of growth hormone (GH).
7. **Diabetes insipidus** is due to hypo secretion of vasopressin. [IPE]
8. **Diabetes mellitus** is due to under secretion of insulin. [IPE]
9. **Insulin shock** is a condition that occurs due to hyper secretion of insulin [IPE]
10. **Epinephrine** and **norepinephrine** are known as **fight** and **flight** hormones. [IPE]
11. **Hypothyroidism** is a condition in which production of thyroid hormones T3 & T4 decreases.
12. **Hyperthyroidism** is a condition in which production of thyroid hormones T3 & T4 increases abnormally. [IPE]
13. **Thyroid stimulating hormone (TSH)** stimulates the synthesis and secretion of thyroid hormones from thyroid gland. [IPE]
14. **Addison's disease** is due to hyposecretion of glucocorticoids by adrenal cortex. [IPE]
15. **Cushing's syndrome** is due to hypersecretion of glucocorticoids. [IPE]

### FRUITY Qs OF IPE

(1 x 2) + (1 x 4) = 6 Marks

1. What is acromegaly? Name the hormone responsible for this disorder.
2. Which hormone is called anti-diuretic hormone? Write the name of the gland that secretes it.
3. Name the gland that increases in size during childhood and decreases in size during adulthood. What important role does it play in case of infection?
4. Distinguish between diabetes insipidus and diabetes mellitus.
5. Which hormone is commonly known as fight and flight hormone?
6. Give an account of the secretions of pituitary gland.
7. Explain how hypothyroidism and hyperthyroidism can affect the body.
8. Write a note on Addison's disease and Cushing's syndrome.