Board – ICSE	Class- VIII	TOPIC – ENDOCRINE SYSTEM

I. Multiple choice questions: Tick (✓) the correct choice.

1. Chemical control in organisms is brought about by

(a) enzymes (b) neurons (c) hormones (d) all the above

Ans. (c)

2. Master endocrine gland is

(a) thyroid (b) pituitary (c) pancreas (d) adrenal

Ans. (b)

3. The hormone thyroxine is secreted by

(a) pituitary gland (b) adrenal gland (c) thyroid gland (d) pancreas

Ans. (c)

4. Insulin is secreted by

(a) pancreas (b) pituitary gland (c) thyroid gland (d) adrenal gland

Ans. (a)

5. The secretions of endocrine glands are called:

(a) Juices (b) Hormones (c) Solutions (d) Enzymes

Ans. (b)

6. Which of the following is a hormonal disease?

(a) Goiter (b) Measles (c) Rabies (d) None

Ans. (a)

7. Which of the following is not an endocrine gland?

(a) Adrenal gland (b) Thyroid (c) Prostate gland (d) Pancreas

Ans. (c)

8. Which of the following glands performs both endocrine and exocrine functions?

(a) Pancreas (b) Pituitary (c) Thyroid (d) Gonads

Ans. (a)

9. Which of the following glands secrete "tropic hormone" to control the secretion by other endocrine glands?

(a) Adrenal medulla (b) Adrenal cortex (c) Thyroid (d) Pituitary

Ans. (d)

10. The gland which secretes a hormone that controls the level of sugar.

(a) Thymus (b) Ovary (c) Pancreas (d) Testis

Ans. (c)

II. Name the following:

1. Five endocrine glands found in human body.

Ans. 1. Pituitary gland 2. Thyroid gland 3. Pancreas gland 4. Adrenal gland 5. Gonadal gland

2. Master gland in human body.

Ans. Pituitary gland is called master gland because it controls all the endocrine glands.

III. Match the items in Column A with those in Column B.

Column A	Column B
1. Cretinism	(a) Pituitary gland
2. Diabetes mellitus	(b) Defective development of child.
3. Increased metabolic rate	(c) Oversecretion of thyroxine
4. Simple goitre	(d) Insufficient iodine in food.
5. Growth hormone	(e) Insufficient insulin in blood

Ans. 1. (b) 2. (e) 3. (c) 4. (d) 5. (a)

IV. Describe two characteristic features of hormones.

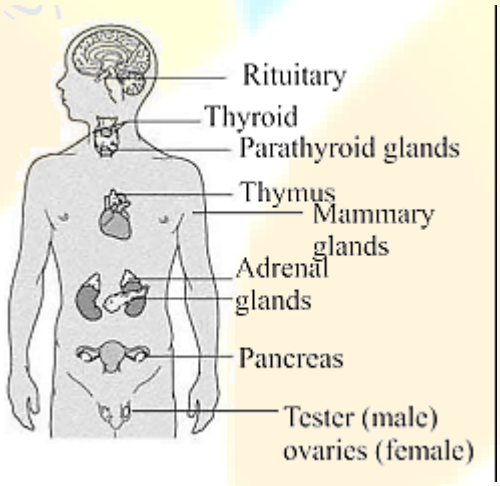
Ans. Characteristic features of hormones:

(i) All the hormones are the protein or protein derivatives.

(ii) Hormones are required in extremely small quantities. Increase, or decrease in the specific quantity is harmful for the organism.

V. Draw an outline figure of the human body and show the location of different endocrine glands.

Ans.



VI. Define hormones.

Ans. Hormones are the chemical substances that are manufactured and secreted in very small quantity into the blood stream by an endocrine gland and regulates the growth or functioning of organs.

VII. Mention two endocrine glands and their functions.

Ans. (i) Pituitary gland.

(1) It is called master gland and situated above the roof of the mouth cavity.

Functions. 1. It controls other endocrine glands. For example, thyroid stimulating hormone and gonadotropin hormone controls the secretion of thyroxin and sex hormones.

(2) It controls growth.

(ii) Thyroid gland. It is located in the neck just above the breastbone.

Functions. (1) It controls the rate of metabolism (Basic Metabolic Rate or BMR)

(2) Its excess inhibits thyrotropic hormone secretion.

VIII. What are the properties of hormones?

Ans. Characteristic of hormones:

i. Hormones are produced in some organs and influence the functioning of some other organs.

ii. Hormones are transported to the target organ by blood.

iii. Hormones are required in small quantity.

iv. Hormones do not initiate a reaction but can influence its rate.

v. Hormones accelerate or inhibit specific physiological processes.

IX. Name a gland which secretes hormones as well as enzymes.

Ans. Pancreas is a gland which acts as a digestive as well as an endocrine gland. It secretes the digestive juice as well as hormones.

X. Under what circumstances the following conditions occur:

(a) Growth is retarded.

(b) Person grows abnormally big.

(c) Diabetes occurs.

(d) Increase in body metabolism, loss of weight and excess of appetite.

Ans. (a) Growth is retarded when pituitary is underactive and the secretion of hormones is less than the required amount in our body. The height of the person is less than a normal person and this condition is called dwarfism.

(b) Person grows abnormally big due to oversecretion of growth hormones by pituitary gland. In childhood, this condition is called gigantism and in adulthood, this condition is called acromegaly.

(c) Diabetes is the condition in which excess of glucose is eliminated by the urine. It is due to less secretion of insulin by pancreas because insulin makes the liver to store more glycogen.

(d) When the thyroid hormones are in excess, the rate of metabolism increases. This results in the loss of weight and excess of appetite.

XI. Why are endocrine glands called growth regulators?

Ans. Hormones are secreted by endocrine glands. These hormones regulate growth patterns and co-ordinate cell functions to promote growth.

a. Name the condition resulting from the iodine deficiency in the body.

Ans. Due to deficiency of iodine in the body, thyroid gland gets enlarged to complete the demand of iodine. This condition is called goitre. It can be prevented by including iodine in our diet.