

Board – ICSE

Class – 10

Topic – Endocrine System

1. Fill in the Blanks:

- (i) A hormone which influences the ossification of bones is \_\_\_\_\_.
- (ii) The endocrine part of the pancreas is \_\_\_\_\_.
- (iii) Insulin makes the liver turn blood sugar into \_\_\_\_\_.
- (iv) \_\_\_\_\_ is called father of endocrinology.
- (v) The activities of the thyroid gland are controlled by \_\_\_\_\_ secreted by the \_\_\_\_\_.

2. True & False:

- (i) Adrenal cortex produces emergency hormone adrenaline.
- (ii) Calcium is the main element of thyroxin.
- (iii) Thyroxin regulates metabolism.
- (iv) Adrenal gland is called Master gland.
- (v) Hormones are chemically protein.

3. Match the Column:

Column A

- (i) Diabetes mellitus
- (ii) Gigantism
- (iii) Acromegaly
- (iv) Dwarfism

Column B

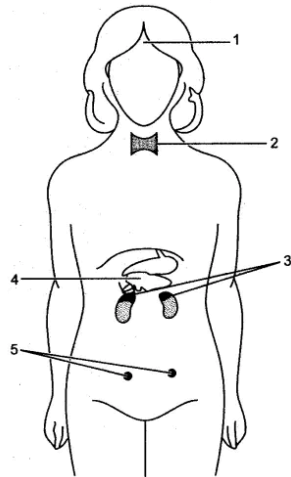
- (a) Under-secretion of adrenal cortex
- (b) Excess of glucose in blood
- (c) Over-secretion of growth hormone
- (d) stimulates development of male and female sex organs
- (e) Over-secretion of growth hormones in adults

4. Multiple Choice Questions:

- (i) Which statement is not for a hormone?
  - a) They act on target organs usually away from the source glands.
  - b) They are secreted directly into the blood.
  - c) They are used again and again like catalysts.
  - d) They are produced in very minute quantities and are biologically very active.
- (ii) Secretin is secreted by :
  - a) Testes and stimulates male secondary character
  - b) Adrenal glands and stimulates heart beat
  - c) Small intestine and stimulates pancreas

- d) Pancreas stimulates conversion of glycogen into glucose.
- (iii) Pancreas is a mixed gland in which:
- All cells secrete enzymes and hormones.
  - Most cells secrete hormones
  - Few cells secrete enzymes
  - Enzymes and hormones are secreted by separate cells.
- (iv) Leydig cells are meant for:
- Formation of sperms
  - To produce progesterone
  - To produce testosterone
  - Nutrition of sperm
- (v) Glucagon is secreted by :
- The alpha cells of islets of Langerhans
  - The beta cells of islets of Langerhans
  - The p cells of pancreas
  - The Adrenal cortex
5. Give Technical Terms:
- When your mouth dries up and the heart begins to beat faster, which hormone brings about the feeling?
  - Name the cells of islets of Langerhans in pancreas, which secretes insulin and glucagon.
  - Name the hormones which lead to the following conditions:
    - Diabetes mellitus
    - Growth of beard in women
    - Myxedema
    - Gigantism
    - Exophthalmic goitre.
  - What are releasing hormones?
  - Name the hormone which maintains glucose level in the blood.
6. State the Location:
- Pituitary gland
  - Pancreas
7. Choose the Odd One Out:
- Cretinism, Myxedema, Simple goitre, Acromegaly.

- (ii) Aldosterone, Cortisol, Progesterone, Epinephrine.
  - (iii) Glucocorticoids, Mineralocorticoids, Corticotrophin, Sex corticoids.
  - (iv) Estrogen, Progesterone, Testosterone, Prolactin.
  - (v) Insulin, blood sugar, adrenaline, thyroxin.
8. Name the Following:
- (i) Hormone secreted by p-cells of Islets of Langerhans.
  - (ii) The hormone produced by the thyroid gland.
  - (iii) Iodine is necessary for the secretion of which hormone.
  - (iv) Disease caused by the deficiency of insulin.
  - (v) Hormone secreted by corpus luteum.
9. Write the functional activity of the following structures:
- (i) Thyroxin
  - (ii) Insulin
10. Give a labeled diagram of thymus gland.
11. Given below is an outline of the human body showing the important glands?
- (i) Name the glands marked 1 to 5.
  - (ii) Name the hormone secreted by 2. Give one important function of this hormone.
  - (iii) Name the endocrine cells present in part 3.
  - (iv) Name the hormone secreted by part 5. Give one important function of this hormone



12. Differentiate between Endocrine gland and Exocrine gland.
13. The thymus is larger and more prominent in children than is adults. Give reasons?
14. Write about some functions of adrenal glands.
15. Match the column:

Column A

Column B

- |                 |   |
|-----------------|---|
| (i) Adrenals    | (a) simulates skeletal growth                                 |
| (ii) Thyroid    | (b) increases heart and breathing rate, raises blood pressure |
| (iii) Cretinism | (c) increases rate of metabolism                              |
| (iv) Adrenalin  | (d) Dwarfism and mental retardation                           |
| (v) Pituitary   | (e) is known as emergency hormone                             |

16. Give technical terms:

- (i) Name the gland in the 'body that secretes the so-called 'Emergency hormone'.
- (ii) Name the hormone which prepares the body to face an emergency situation.
- (iii) Name the glands which secrete the following hormones:
  - (a) Progesterone
  - (b) Testosterone
  - (c) ACTH
  - (d) Adrenaline
- (iv) Name the hormones secreted by the pancreas.
- (v) Name the structure which produces testosterone.

17. Choose the odd one out:

- (i) Goiter, Cretinism, Scurvy, Myxedema.
- (ii) Adrenal, liver, thyroid, pituitary.
- (iii) Oxytocin, Insulin, Prolactin, Progesterone.
- (iv) Testosterone, Epinephrine, Progesterone, Aldosterone.
- (v) Insulin, Glucagon, Diabetes insipidus, Diabetes mellitus.

18. Draw and label the structure of thyroid gland.

19. Some of the endocrine glands are shown by the guidelines:

- (i) Name the glands 1 to 5.
- (ii) Name any two endocrine glands which are not shown in the diagram.
- (iii) Name one gland which is both exocrine and endocrine.

20. Differentiate between Cretinism and Myxedema.