SARASWATI

HEAD OFFICE
208, CD, LOCAL SHOPPING CENTER
AGGARWAL SHOPPING PLAZA,

BRANCH -1
AYODHYA CHOWK SEC -3
ROHINI

BRANCH -2
DC CHOWK SEC- 9, ROHINI

9TH & 10TH MATHS / SCIENCE
11TH & 12TH – PHYSICS / CHEMISTRY / MATHS / BIOLOGY
EXCLUSIVE BATCH FOR NEET / JEE ASPIRANTS
Ph no. 9696 500 500 / 9696 400 400

Ch- 22 (Chemical Coordination and integration)

1 marks

1. Why is chemical/hormonal coordination necessary?

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2. There are many endocrine glands in human body. Name the gland which is absent in males and the one absent in females.

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3. Name the neurohormone, which inhibits the secretion of growth hormone from the anterior pituitary.

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4. Where are the hormones of the posterior pituitary synthesised?

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5. George has come on a vacation to India from US. The long journey disturbs his biological system and he suffers from jet lag. What is the cause of his discomfort?

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6. Name the only hormone secreted by pars intermedia of the pituitary gland.

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7. Why is thyroxine referred to as T_4 ?

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8. Why is PTH called a hypercalcemic hormone?

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9. Why does the immune system become weak in old human beings?

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10. How do catecholamines increase the level of blood glucose?

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11. Why are catecholamines called emergency hormones?

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12. What is hyperglycemia? What disorder does it lead to?

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13. Justify 'Glucagon is a hyperglycemic hormone'.

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14. Name the cells of testes which secrete androgens/testosterone.

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15. Define glycogenesis.

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16: What is the role of second messenger in the mechanism of protein hormone action?

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2 marks

17. What is the main function of hypothalamic hormones? Mention their two categories.

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18. How are the hypothalamic hormones transported to the target organs?

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19. A milkman is very upset one morning as his cow refuses to give any milk. The milkman's wife gets the calf from the shed. On fondling by the calf, the cow gave sufficient milk. Describe the role of endocrine gland and pathway associated with this response.

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20. Name the disease in which there is a reduced renal absorption of water with a consequent elimination of a large volume of very dilute urine. What is its cause?

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21. Mention the difference between hypothyroidism and hyperthyroidism?

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22. Match the columns:

Column I	Column II
(i) T4	(a) Hypothalamus
(ii) PTH	(b) Thyroid
(iii) GnRH	(c) Pituitary
(iv) LH	(d) Parathyroid [NCERT]

23. How does aldosterone function in our body?

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24. Name the hormones secreted by α-cells and β-cells of pancreas. How is glucose homeostasis in our blood maintained by these hormones?

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25. Differentiate between glycogenesis and glycogenolysis and the hormone involved in each of them.

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26. Mention any four activities regulated by the estrogen hormone.

Or

List any four effects produced by estrogen.

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27. Define the following:

(a) Exocrine gland (b) Endocrine gland (c) Hormones

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28. On an educational trip to Uttranchal, Ketki and her friends observed that many local people were having swollen necks. Please help Ketki and her friends to find out the solutions to the following questions.

(a) Which probable disease are these people suffering from?

(b) How is it caused?

(c) What effect does this condition have on pregnancy?

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29. Name the hormone secreted from the stromal or parafollicular cells of thyroid. Mention the condition, when it is secreted and its function.

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30. What is exophthalmic goitre? Mention any four symptoms of the disorder.

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31. Name the three layers of tissues of adrenal cortex. What general term is given to the hormones secreted by them? Name the hormones.

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32. How does progesterone function in a human female?

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3.10. Which hormonal deficiency is responsible for the following:

(i) Diabetes mellitus (ii) Goitre (iii) Cretinism?

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5 marks

33. Name the peptide hormones secreted by the gastrointestinal tract and mention their functions in detail.

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34. Name the hormone that regulates each of the following and mention the source of it:

(i) Heart beat and blood pressure

(ii) Secretion of growth hormone

(iii) Maturation of Graafian follicles

(iv) Rise in calcium ion level in the blood

(v) Milk secretion

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35. Fill in the blanks:

Hormones Target gland

(i) Hypothalamic hormones……

(ii) Thyrotropin (TSH)…….

(iii) Corticotropin (ACTH)…….

(iv) Gonadotropins (LH, FSH)…….

(v) Melanotropin (MSH)……

36. Give examples of:

(a) Hyperglycemic hormone and hypoglyce- mic hormone

(b) Hypercalcemic hormone

(c) Gonadotropic hormones

(d) Progestational hormone

(e) Blood pressure lowering hormone

(f) Androgens and estrogens.

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37. The neural system and the endocrine system jointly coordinate and regulate the physiological functions of the body.

(a) How are the two systems different from each other?

(b) What values are shown by the functioning of these two systems?

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38. Hypothalamus, a part of the brain (nervous as an endocrine gland system) also functions and secretes two types of neurohormones;

(i) the releasing hormones and (ii) the inhibiting hormones.

(a) Mention the functions of the two types of hormones and give an example of each type.

(b) How do the hypothalamic hormones reach the pituitary?

(c) What value do you learn from these coordinated functions of hypothalamus, anterior and posterior pituitaries.

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39. Certain hormones function antagonistic to each other to regulate a particular metabolism; when one speeds up the reaction, the other inhibits it.

(a) Name two pairs of hormones where the members are antagonistic to each other.

Mention their functions.

(b) What is a target tissue/organ for a hormone?

(c) Indicate the value antagonism in hormone functioning teaches you.

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40 Hormones produce their effects on the target tissue, by binding to specific proteins, called hormone receptors. Hormone receptors are of two types.

(a) Name the two types of receptors.

(b) Why do different hormones use the different types of receptors?

(c) What are second messengers? Give two examples?

(d) What value do you see in this method of functioning?

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