CHEMICAL COORDINATION & INTEGRATION

1. The hormone responsible for "Fight and Flight" response is

a) Adrenalin**

b) Thyroxine

c) ADH

d) Oxytocin

2. The primary androgen produced by males is _____.

a) Epinephrine

b) Aldosterone

c) Cortisol

d) Testosterone**

3. Which of the following hormones synchronizes circadian rhythms and involved in onset of puberty?

a) Thymopoietin

b) Thymosin

c) Melatonin**

d) Parathyroid

4. Which of the hormone(s) has effects on the stomach, pancreas, and gallbladder

a)Secretin

b)Cholecystokinin

c)Gastrin

d)All of the above**

5. Which one of the following condition is resulted from excess GH in adults?

a) Cushing's disease

b) Acromegaly**

c) Hyperthyroidism

d) Diabetes mellitus

6. Which one of the following pairs of organs includes only the endocrine glands?

a) Adrenal and Ovary

b) Parathyroid and Adrenal**

c) Pancreas and Parathyroid

d) Thymus and Testes

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7. The nerve centers which control the body temperature and the urge for eating are contained in

a) Thalamus

b) Hypothalamus**

c) Pons

d) Cerebellum

8. In adults, insufficient thyroxin can lead to _____.

a) Goiter

b) Tetany

c) Cretinism

d) Myxedema **

9. In the body, both the blood sodium and potassium levels are regulated by _____.

a) Pheromones

b) Aldosterone**

c) Cortisol

d) Androgens

10. In which of the following pairs, the hormone of endocrine glands and its primary action is mismatched.

a) Calcitonin - Lower blood calcium levels

b) Parathyroid - Raises blood calcium levels

c) Somatostatin - Inhibits release of glucagon

d) Melatonin - Regulates the rate of cellular metabolism**

11. Pituitary gland known as the 'master' endocrine gland is under the control of

a) Pineal gland

b) Adrenal gland

c) Hypothalamus**

d) Thyroid gland

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12. Role of Somatostatin

a) Stimulates glucagon release while inhibits insulin release

b) Stimulates release of insulin and glucagon

c) Inhibits release of insulin and glucagon**

d) Inhibits glucagon release while stimulates insulin release

13. In human adult females oxytocin

a) Causes strong uterine contractions during parturition**

b) Is secreted by anterior pituitary

c) Stimulates growth of mammary glands

d) Stimulates pituitary to secrete vasopressin

14. In addition to thyroxine (T4), triiodothyronine (T3), thyroid gland produces _____

a) Thyroid-stimulating hormone

b) Adrenocorticotropic hormone

c) Calcitonin**

d) Gonadotropic hormones

15. Given below is an incomplete table about certain hormones, their source glands and one major effect of each on the body in humans. Identify the correct option for the three blanks A, B and C

GLANDS	SECRETION	EFFECT ON BODY
A	Oestrogen	Maintenance of secondary sexual characters
Alpha cells of Islets of Langerhans	B	Raises blood sugar level
Anterior pituitary	C	Over secretion leads to gigantism

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16. The two English physiologists who first demonstrated the action of a hormone were

a. Bayliss and Starling
b. Bayliss and Cannon
c. Banting and Best
d. Banting and Starling

17. Hormones travel by

a. Intentionally seeking out the tissue they will affect
b. Only traveling down the bloodstream in the direction of the target tissues
c. Seeking the neurons that are going to the target tissue and using them as pathways
d. Floating everywhere in the blood stream, but only the target tissues will respond to their presence

18. Which of the following hormones is NOT a product of the anterior lobe of the pituitary?

a. Antidiuretic hormone
b. Thyroid stimulating hormone
c. Gonadotropic hormones
d. Adrenocorticotropic hormone

19. A fast-acting hormone produced by the intermediate lobe of the pituitary and that promotes dispersion of pigment in fishes, amphibians, and reptiles is

a. Pineal gland stimulating hormone (PGSH)
b. Vasotocin
c. Melatonin
d. Melanocyte-stimulating hormone (MSH)

20. Which hormone stimulates the secretion of estrogen and progesterone?

a. Antidiuretic hormone
b. Thyroid stimulating hormone
c. Luteinizing hormone
d. Adrenocorticotropic hormone

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21. The preparation of the mammary glands for secretion of milk requires the action of

a. Progesterone

b. Prolactin

c. Estrogen

d. Human chorionic gonadotropin

22. Cells involved in the immune response communicate with each other through a large group of polypeptide hormones called

a. Endorphins

b. Growth hormones

c. Cytokines

d. Prostaglandins

23. Select the right match of endocrine gland and their hormones among the options given below

GLAND	SECRETION
A. Pineal	i. Epinephrine
B. Thyroid	ii. Melatonin
C. Ovary	iii. Estrogen
D. Adrenal medulla	iv. Tetraiodothyronine

a. A-iv, B-ii, C-iii, D-i b. A-ii, B-iv, C-i, D-iii

c. A-iv, B-ii, C-i, D-iii d. A-ii, B-iv, C-iii, D-i**

24. John is about to face an interview. But during the first five minutes before the interview he experiences sweating, increased rate of heart beat, respiration etc. Which hormones are responsible for his restlessness?

a. Estrogen and progesterone b. Oxytocin and vasopressin**

c. Adrenaline and noradrenaline d.gastrin and enterogastrone

25. The hormone responsible for balance of water and electrolytes in our body is

a. Insulin b. Melatonin c. Testosterone d. Aldosterone**

26. Role of Thymosin is

a. Raising the blood sugar level b. Raising the blood calcium level

c. Increased production of T lymphocytes** d. Decrease in blood RBC

27. Choose the correct answer among the following options

HORMONE	ACTION

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A. Epinephrine	i. Increase in muscle growth
B. Testosterone	ii. Decrease in blood pressure
C. Glucagon	iii. Decrease in liver glycogen
D. Atrial natriuretic factor	iv. Increase heart beat

a. A-ii, B-i, C-iii, D-I b. A-iv, B-i, C-iii, D-ii**

c. A-i, B-ii, C-iii, D-iv d. A-i, B-iv, C-ii, D-iii

28. The hormone that influences the production of red blood cells is:

a) Thyroxin of thyroid b) erythropoietin of kidney**

c) calcitonin of parathyroid d) thymosin of thymus

29.Which of the following is NOT true about hormones?

a) Hormones are secreted into the bloodstream.

b) Hormones are released from exocrine glands.**

c) Hormones may be classified as peptides or steroids.

d) Hormones usually affect a target organ.

30. Which of the following endocrine glands does NOT produce its own hormones but stores hormones produced by the hypothalamus?

a) Thyroid

b) Adrenal cortex

c) Adrenal medulla

d) Posterior pituitary**

31.Which of the following hormones is/are NOT a product of the anterior lobe of the pituitary?

a) Growth hormone

b) Antidiuretic hormone **

c) Gonadotropic hormones

d) Thyroid-stimulating hormone

32. Production of more amount of urine indicates

a) Little ADH**.

b) Much ADH.

c) Little ACTH. d) Much ACTH.

33. Which hormone will stimulate the release of milk from the mother's mammary glands?

a) Oxytocin** b) Prolactin c)ADH d)HGH

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34. Simple goiter can be prevented by

a) Surgery to remove the thyroid gland.

b) Removal of the pituitary.

c) Administration of ACTH.

d) Increasing intake of iodine in the diet**.

35. Which is NOT a correct consequence of surgical removal of portions of these glands?

a) Adrenal cortex--bronzing of skin, no glucose at stress, dehydration and death

b) Thymus--decrease in sex drive and changes in secondary sexual characteristics**

c) Parathyroid glands--drop in blood calcium level and tetany (muscles shake)

d) Ovaries--alteration in menstrual cycle and change in secondary sex characteristics

36. Which of the following hormones is considered a glucocorticoid?

a) Aldosterone

b) Insulin

c) Thyroxin

d) Cortisol**

37. Which of the following glands has both an endocrine and an exocrine function?

A) Mammary gland

B) Pancreas**

C) Pituitary

D) Adrenal gland

38. Which of the following symptoms is NOT characteristic of diabetes mellitus?

a) Cells unable to take up glucose

b) Increased breakdown of fats and protein

c) Frequent urination

d) Bronzing of the skin **

39. Which pair of hormones has opposite, antagonistic effects?

a) Insulin--glucagon

b) Insulin--progesterone

c) Estrogen--thyroxin

d) Thyroxin--parathyroid hormone

40. Which of the following statements is NOT true about diabetes mellitus?

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A) Type II diabetes is much more common than type I.

B) Insulin injections are required in both type I and type II diabetes.**

C) Type I diabetes occurs as a result of destruction of the insulin-producing cells.

D) One method of treating type II diabetes is exercise and a low-fat, low-sugar diet.

41. Receptors for most water-soluble hormones are located

a) In the cytoplasm of their target cells.

b) On the plasma membrane of their target cells*.

c) In the lysosomes of their target cells.

d) On the nuclear membrane of their target cells.

E) On the endoplasmic reticulum of their target cells.

42. When a hormone binds to a membrane–bound receptor,

a) Membrane channels are destroyed.

b) Cyclic GMP might be produced to act as an intracellular mediator**.

c) The nucleus is phosphorylated to prevent G-protein activation.

d) Messenger RNA is formed.

43. The role of hormone in a pregnant woman which helps in parturition is

a) Releasing of glucose into the blood b) increasing of metabolic rate

c) Activates smooth muscles** d) stimulates ovary

44. All the following except one consists of central medullary region surrounded by cortical region

a) kidney b) ovary c) adrenal gland d)liver**

45. Iodine is essential for the synthesis of

a) thyroxine* b) parathormone c) melatonin d)MSH

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