EXERCISE-I

HORMONES AND THEIR MECHANISM

1. The word "*hormone*" means
(A) To move (B) To excite
(C) To initiate (D) To increase

2. Rate of hormone synthesis and secretion depends upon
(A) Functional efficiency of the feedback system
(B) Amount of excitation in target tissue
(C) Degree of inhibition caused
(D) Functional state of the tissue/organ

3. Find odd one out
(A) Thyroxin
(B) Adrenocorticosteroid
(C) Ptyalin
(D) Estradiol

4. Which of the following is not necessarily a property of all hormones
(A) Information carrying
(B) Secreted in low amounts
(C) Short half-life
(D) Protein in nature

5. Which of the following statement is not false
(A) Hormone produced in thyroid stimulates metabolism
(B) Hormone produced in ovary affects the uterine contraction
(C) Hormone produced in small intestine stimulates heart
(D) Hormone produced in adrenal cortex stimulates heart beat

6. In which of the following organisms hormones are normally absent
(a) Monkey (B) Cat
(b) Cockroach (D) Bacteria

7. Endocrine glands produce or Action of endocrine glands is mediated through
(A) Hormones (B) Enzymes
(C) Minerals (D) Vitamins

8. Which of the following is secreted at ends of nerve fibres
(A) Ascorbic acid (B) Acetic acid
(C) Acetyl CoA (D) Acetylcholine

9. Term '*hormone*' was coined by
(A) W. M. Bayliss (B) E. H. Schally
(C) E. H. Starling (D) G. W. Harris

10. Receptors for protein hormones are located
(A) In cytoplasm
(B) On cell surface
(C) In nucleus
(D) On endoplasmic reticulum

11. According to the accepted concept of hormone action, if receptor molecules are removed from target organs
(A) The target organ will continue to respond to the hormone without any difference
(B) The target organ will continue to respond to the hormone but will require higher concentration
(C) The target organ will not respond to the hormone
(D) The target organ will continue to respond to the hormone but in the opposite way

12. All functions of the body are regulated and integrated by
(A) Respiratory system
(B) Digestive system
(C) Neuroendocrine system
(D) Excretory system

13. Which one of the following flows directly into blood from the seat of its production to act on an organ away from it
(A) Enzyme (B) Hormone
(C) Blood (D) Lymph

14. Who is the "Father of Endocrinology"
(A) Whittaker (B) Einthoven
(C) Pasteur (D) T. Addison

15. The feedback control mechanism is related with
(A) Bile secretion
(B) *HCl* secretion
(C) Hormonal secretion
(D) Hering breuer reflex

16. Which of the following cell does not secrete hormone
(A) Kupffer cell
(B) Leydig cell
(C) Lutein cell
(D) Parafollicular cells of thyroid

17. Which hormone is secreted more in dark condition
(A) Insulin (B) Adrenalin
(C) Thyroxine (D) Melatonin

18. Pheromone is
(A) A product of endocrine gland
(B) Used for animal communication
(C) Messenger RNA
(D) Always protein

19. The name second messenger is given to
(A) ATP
(B) Cyclic AMP
(C) GTP
(D) Both ATP and AMP

20. Endocrine glands
(A) Do not possess ducts
(B) Sometimes do not have ducts
(C) Pour their secretion into blood through ducts
(D) Always have ducts

DIFFERENT GLANDS AND THEIR HORMONES

21. Diabetes incipidus is caused due to the deficiency of
(A) Oxytocin (B) Insulin
(C) Vasopressin (D) Glucagon

22. A person suffering from diabetes insipidus will pass what amount of urine per day
(A) 1 litre (B) $\frac{1}{2}$ litre
(C) 3 litres (D) 1.5 litres

23. Posterior lobe of pituitary gland is also known as
(A) Hypophysis
(B) Adenohypophysis
(C) Neurohypophysis
(D) Pars intermedia

24. Hypersecretion of growth hormone by pituitary results in
(A) Dwarfism (B) Gigantism
(C) Cretinism (D) Myxoedema

25. The activity of adrenal cortex is governed by a pituitary hormone abbreviated as
(A) HCG (B) FSH
(C) ACTH (D) TSH

26. Adrenocorticotropin is a hormone of
(A) Pituitary (B) Adrenal
(C) Thyroid (D) Adrenal medulla

27. The intermediate lobe of the pituitary gland produces a secretion which causes a dramatic darkening of the skin of many fishes, amphibians and reptiles. It is
(A) Adrenocorticotropic hormone (ACTH)
(B) Follicle stimulating hormone (FSH)
(C) Melanocyte stimulating hormone (MSH)
(D) Luteinizing hormone (LH)

28. Occurrence of diuresis following saline ingestion is due to
(A) Suppression of adrenocorticoid release
(B) Reduction in the rate of water absorption by kidney capillaries
(C) Suppression of ADH release
(D) Reduction of colloidal osmotic pressure of blood

29. Which of the following pituitary hormone is a direct action hormone
(A) MSH (B) ICSH
(C) ACTH (D) TSH

30. Hormone present in greatest concentration during ovulation is
(A) FSH (B) LH
(C) Prolactin (D) ACTH

31. Gametokinetic factor is
(A) ACTH (B) GH
(C) FSH (D) TSH

32. "*Water drinkers*" is the name given to persons who have
(A) Undersecretion of ADH
(B) Oversecretion of ADH
(C) Absence of ADH
(D) None of the above

33. Melanocyte stimulating hormone
(A) Is same as melatonin
(B) Is secreted by pars tuberalis of anterior pituitary
(C) Secretion is stimulated by hydrocortisone
(D) Activity is inhibited by epinephrine

34. Degeneration of anterior pituitary results into
(A) Sterility
(B) Extreme weakness
(C) Hypoglycaemia
(D) All of the above

35. Which of the following secretes leutenizing hormone
(A) Pituitary (B) Thyroid
(C) Parathyroid (D) Adrenal

36. Pitressin is also called as
(A) ADH (B) LH
(C) NADH (D) FSH

37. There are three endocrine glands involved in carbohydrate metabolism, mark the correct set
(A) Pancreas, neurohypophysis and adrenal
(B) Pancreas, pituitary and thyroid
(C) Pancreas, pituitary and liver
(D) Pancreas, adenohypophysis and adrenal

38. A number of drugs and alcohols suppress ADH secretion. This results in
(A) Loss of thirst (B) Loss of appetite
(C) Loss of urine (D) More of urine

39. The important function of vassopressin hormone is to
(A) Cause contraction of the uterus and thus help in child birth
(B) Increase reabsorption of water in the kidney tubule
(C) Stimulate the secretion of milk in the mammary glands
(D) Lower the level of blood glucose

40. Contraction of the uterus, increase in arterial pressure and reduction in urine output are produced by
(A) Oxytocin and ACTH
(B) Vasopressin and TSH
(C) ADH and ACTH
(D) Oxytocin and vasopressin

41. Acromegaly results after adolescence due to excess production of one of the following hormones
(A) Prolactin (B) Thyroxin
(C) Insulin (D) STH

42. Cretinism is due to
(A) Excess growth hormone
(B) Absence of insulin
(C) Excess adrenalin
(D) Hyposecretion of thyroid in childhood (Thyroxin)

43. '*Exophthalmic goitre*' (Grave's disease) is caused due to
(A) Hypofunction of the thyroid
(B) Hyperfunction of the thyroid
(C) Hypofunction of the parathyroid
(D) Hyperfunction of the parathyroid

44. Substance responsible for metamorphosis
(A) Estrogen (B) Thyroxin
(C) Propandiol (D) Glucagon

45. Thyroxin was isolated by
(A) Kocher
(B) Best and Sterling
(C) F. Senger
(D) None of the above

46. A person appears fat, short and stocky and has stupid look and protruding tongue due to the hormonal deficiency of
(A) Parathyroid (B) Thyroid
(C) Adrenal (D) Pineal

47. Metamorphosis can be accelerated by
(A) I_2 (B) P
(C) K (D) Ca

48. The abbreviation TSH stands for
(A) Thyroxine stimulate hormone
(B) Thymine stimulating hormone
(C) Thyroxine secreting hormone
(D) Thyroid stimulating hormone

49. Which is not a steroid hormone
(A) Aldosterone (B) Androgen
(C) Estrogen (D) Thyroxine

50. When the thyroid secretion is too much, the gland itself gets enlarged, conversely, if the secretion is too little, the gland gets
(A) Enlarged (B) Reduced
(C) Disappeared (D) None of above

51. Hormones thyroxin, adrenaline and the pigment melanin are formed from
(A) Tryptophan (B) Glycine
(C) Tyrosine (D) Proline

52. Iodine is associated with
(A) Thyroxin (B) Calcitonin
(C) Oxytocin (D) Secretin

53. The gland which acts to resist stress
(A) Adrenal (B) Parathyroid
(C) Pineal (D) Thyroid

54. Which of the following gland plays a key role in metamorphosis of frog's tadpole
(A) Adrenal (B) Thymus
(C) Pancreas (D) Thyroid

55. Goitre affects
(A) Metabolism (B) Vision
(C) Excretion (D) Speech

56. Why thyroxine is a hormone not an enzyme
(A) It is secreted in small quantity
(B) It is not a polypeptide
(C) It has no special effect
(D) It is directly poured into blood

57. The other name for autoimmune thyroiditis is
(A) Addison's disease
(B) Simmond's disease
(C) Hashimoto's disease
(D) Cushing's disease

58. Disease related to thyroxine hormone
(A) Goitre (B) Acromegaly
(C) Addison disease (D) Thalasemia

59. Proper development of the bone depends on
(A) Epinephrin (B) Thyroxin
(C) Parathormone (D) Vasopressin

60. Hypoparathyroidism results to
(A) Upset in metabolism
(B) Improper gonodial function
(C) Convulsions and tetany
(D) Nervousness and wasting

61. Which is not a gonadal hormone
(A) Progesterone (B) Testosterone
(C) Adrenalin (D) Estrogen

62. Cortisol is produced by
(A) Thyroid (B) Parathyroid
(C) Adrenal (D) Thymus

63. Cushing's syndrome and myxoedema are associated with these glands respectively
(A) Thyroid, adrenal
(B) Adrenal, thyroid
(C) Parathyroid, thyroid
(D) Adrenal, pituitary

64. The hormone having a stimulatory effect on the heart is
(A) Adrenaline (B) Gastrin
(C) Glucagon (D) Thyroxin

65. Deficiency in the activity of adrenal cortex leads to
(A) Addison's disease
(B) Simmond's disease
(C) Cohn's syndrome
(D) Cushing's disease

66. Addison's disease is caused by under secretion of
(A) ACTH (B) Insulin
(C) Cortin (D) Adrenalin

67. Which one of the following is both hormone and enzyme
(A) ADH hormone
(B) Acetylcholinesterase
(C) Angiotensinogen
(D) Renin

68. Blood pressure is controlled by
(A) Adrenal (B) Thyroid
(C) Thymus (D) Corpus luteum

69. Which of the following endocrine glands functions under nervous control
(A) Cortex of adrenal glands
(B) Medulla of adrenal glands
(C) Anterior pituitary glands
(D) Posterior pituitary gland

70. Which of the following is not under direct control of pituitary gland with respect to the regulation of its secretory function
(A) Adrenal cortex (B) Adrenal medulla
(C) Thyroid (D) Testis

71. Which gland is concerned with salt equilibrium in body
(A) Anterior pituitary
(B) Pancreas
(C) Adrenal
(D) Thyroid

72. Which one affects liver, muscle and adipose tissue
(A) Androgen (B) Insulin
(C) Progesterone (D) Glucagon

73. According to one of the theories of ageing, the decline and disappearance of which gland by late middle age is the primary cause of ageing
(A) Parathyroid
(B) Thyroid
(C) Thymus
(D) Posterior lobe of pituitary

74. Which of the following is related to the production of lymphocytes and antibodies
(A) Thymus (B) Hypothalamus
(C) Thyroid (D) Leydig cells

75. Pineal body originates from
(A) Dorsal part of diencephalon
(B) Ventral part of diencephalon
(C) Ventral part of cerebellum
(D) Dorsal part of cerebellum

76. According to recent knowledge, the pineal body is considered as
(A) A vestigial organ
(B) An organ of intelligence
(C) An endocrine gland
(D) An organ of involuntary action

77. The recently discovered hormones, melatonin and serotonin are secreted at ends of nerve fibres by the activity of
(A) Adrenal gland (B) Pineal gland
(C) Thymus gland (D) Thyroid gland

78. Daily rythms are usually associated with
(A) Pineal (B) Pituitary
(C) Thymus (D) Hypothalamus

79. In a pregnant woman having prolonged labour pains, if child birth has to be hastened *i.e* to aid parturition, it is advisable to administer a hormone that can
(A) Activate the smooth muscles
(B) Increase the metabolic rate
(C) Release glucose into the blood
(D) Stimulate the ovary

80. Which one of the following statement about sex hormones is correct
(A) Testosterone is produced by Leydig cells under the influence of luteinizing hormone (LH)
(B) Progesterone is secreted by corpus luteum and soften ligaments during child birth
(C) Estrogen is secreted by both Sertoli cells and corpus luteum
(D) The progesterone produced by corpus luteum is biologically different from the one produced by placenta

81. The effect of prolactin will be marked in
(A) Bones (B) Pancreas
(C) Mammary gland (D) Liver

82. The hormone which brings about characteristic changes in the male at puberty is called
(A) Testosterone (B) Estrogen
(C) FSH (D) LH

83. Cholesterol is necessary for the synthesis of
(A) Vitamin C (B) Vitamin B
(C) Estradiol (D) Insulin

84. Male hormone is
(A) Adrenalin (B) Testosterone
(C) Progesterone (D) Insulin

85. Leydig's cells secrete
(A) Estrogen (B) Progesterone
(C) Testosterone (D) Aldosterone

86. Some hormones check the milk from being secreted by the mammary glands till the birth of young ones even though the glands are all prepared to do so. They are
(A) Progestin and prolactin
(B) Prolactin and FSH
(C) Estrin and prolactin
(D) Estrin and progestin

87. Adenohypophyseal hormone that stimulates the gonads in males and females are called
(A) Prolactin
(B) Luteotropic hormone
(C) Follicle stimulating hormone
(D) Gonadotropins

88. Steroid hormones regulate gene activity through
(A) Transcription
(B) Binding with specific DNA sites
(C) Removing the repressor molecules
(D) The formation of a receptor complex

89. In male, the retard growth of the secondary sexual characters is due to the deficiency of one of the hormones
(A) Progestrine (B) Androsterone
(C) Cortin (D) Thyroxin

90. Function of relaxin hormone is
(A) Relax pubic symphysis
(B) Relax ovaries
(C) Relax uterus
(D) Relax fallopian tubule

91. When mammary glands of male develop similar to that of female, then this condition is known as
(A) Gonochorism (B) Gynaecomastia
(C) Faminism (D) Gynaecism

92. The male hormone, *testosterone* is secreted by
(A) Sperms
(B) Seminiferous tubules
(C) Prostate glands
(D) Interstitial cells of testes

93. The name of hormone secreted by the ovary, which facilitates growth of ovarian follicle is
(A) Progesterone (B) LH
(C) FSH (D) Estradiol

94. At the time of puberty in boys which hormone triggers changes
(A) Adrenaline (B) Insulin
(C) Testosterone (D) Thyroxin

95. In mammals the relaxin hormone is secreted by
(A) Follicle (B) Placenta
(C) Corpus callosum (D) Testis

96. Which of the following acts as precursor for steroid hormones
(A) Amino acids (B) Cholesterol
(C) Mucoprotein (D) Nucleic acids

97. High increase in oxytocin level in a pregnant lady results in
(A) Increased synthesis of milk
(B) Decrease is haemoglobin %
(C) Abortion
(D) High blood pressure

98. Secretion of large quantities of estrogen causes
(A) Growth of fallopian tube
(B) Growth of breast due to ducts of mammary gland
(C) Enlargement of female external genitalia
(D) All the above

99. Tick out the wrong statement
(A) Vasopressin is an antidiuretic hormone
(B) Sex hormones are protein in nature
(C) LH and ICSH are the same hormones
(D) Glucagon is a catabolic hormone

100. Which of the following is not a protein hormone
(A) Testosterone
(B) Growth hormone
(C) ACTH
(D) FSH

101. In males, the essential hormone for secondary sexual characteristics is
(A) Testosterone (B) Progesterone
(C) Estrogen (D) Relaxin

102. Diabetes is due to
(A) Na^+ deficiency
(B) Hormonal deficiency
(C) Enzyme deficiency
(D) Iodine deficiency

103. Which one of the following cells, found in testes of rabbit secretes male hormone
(A) Leydig's cell (B) Sertoli cells
(C) Epithelial cells (D) Spermatocytes

104. The persistence of corpus luteum during pregnancy is due to a hormone known as
(A) Chorionic gonadotropic hormone
(B) FSH
(C) Estrogen
(D) Progesterone

105. An overdose of intravenous insulin may lead to the death of an individual due to
(A) An excessive increase of blood glucose
(B) An excessive decrease of blood glucose
(C) An inhibition of glucagon secretion
(D) An over production of histamine

106. Which one of the following pair is the matching pair of the part and the hormone it secretes
(A) Thyroid – Epinephrin
(B) Alpha cells of pancreas *Glucagon*
(C) Anterior pituitary – *Adrenalin*
(D) Stomach epithelium – *Secretin*

107. Diabetes mellitus is caused due to the deficiency of insulin which is secreted by
(A) Alpha cells (B) Beta cells
(C) Pituitary (D) Thyroid

108. During menstruation the level of progesterone in blood is
(A) Low (B) High
(C) Normal (D) Very high

109. "*Islets of Langerhans*" are found in
(A) Pancreas (B) Pituitary
(C) Stomach (D) Spleen

110. Which part of body secretes the hormone secretin
(A) Ileum (B) Duodenum
(C) Stomach (D) Oesophagus

111. A disease characterised by raised levels of blood glucose as well as increased fat and protein metabolism is
(A) Diabetes
(B) Cancer
(C) Ulcer
(D) Enlargement of pancreas

112. The rise of blood sugar above the normal level is known as
(A) Hyperglycemia
(B) Hypoglycemia
(C) Glucosuria
(D) Glycolysis

113. Insulin is produced by
(A) Alpha cells (B) Beta cells
(C) Adrenal cortex (D) Testis

114. Hormone involved in the discharge of pancreatic juice in mammals is
(A) Secretin
(B) Gastrin
(C) Cholecytokinin
(D) Enterogasterone

115. Glycogen is converted into glucose by
(A) Insulin
(B) Glucagon
(C) Both insulin and glucagon
(D) Galactase

116. Insulin is secreted by
(A) Pituitary (B) Pancreas
(C) Gonads (D) Thymus

117. If the pancreating duct of a healthy dog is blocked an hour after it had its food, which one of the following functions of the pancreas will not be affected
(A) Carbohydrate digestion
(B) Neutralization of chyme
(C) Break down of protein
(D) Maintenance of normal blood sugar level

118. In case the islets of Langerhans stop functioning which hormone will be in short supply and what will be its effect
(A) Insulin–Blood glucose level will rise
(B) Adrenaline–Heart beat will increase
(C) Thyroxin–Growth will be retarded
(D) Cortine–Tetany will develop

119. Which hormone has the anti-insulin effect
(A) Calcitonin (B) Cortisol
(C) Oxytocin (D) Aldosterone

120. Which of the following statement is false
(A) The hormone produced in the ovary affects uterine contraction
(B) The hormone produced in the small intestine stimulates the heart
(C) The hormone produced in thyroid regulates general metabolism
(D) The hormone produced in parathyroid produces tetany

121. Insulin is secreted by $\beta-$cells of islets of Langerhans. Which is not correct concerning insulin
(A) It is rich in cysteine, leucine and glutamic acid
(B) Oestrogen stimulates the secretion of insulin
(C) Two chains of insulin are linked by disulphide bridges
(D) The functional nature of insulin is same as that of proinsulin

122. Beta and alpha cells secrete the following hormones in respective order
(A) Insulin and glucagon
(B) Glucagon and insulin
(C) Testosterone and progesteron
(D) Adrenalin and nor–adrenalin

123. Which hormone stops the secretion of *HCl* from parietal cells of stomach
(A) Enterogasterone
(B) Enterokinase
(C) Gastrin
(D) Secretin

124. Gluconeogenesis is controlled by
(A) Cortisol (B) Corticosterone
(C) Thyroxine (D) All the above

125. Pancreas secretes
(A) Digestive enzymes (B) Insulin
(C) Glucagon (D) All the above

126. Serotonin hormone is secreted by
(A) α – cells (B) β – cells
(C) δ – cells (D) All the above

127. Which one of the following hormone is antiinflamatory
(A) Secretin (B) Epinephrin
(C) Glucoprotein (D) Glucocorticoid

128. Glucagon and insulin are
(A) Antagonistic secretions
(B) Secreted by same cells and perform similar function
(C) Secreted by different cells and perform antagonistic function
(D) Secreted by same cells and perform antagonistic functions

129. The function of glucagon hormone is
(A) To increase glycogenesis
(B) To decrease blood sugar level
(C) To release glucose from liver cells and glycogenolysis promotion
(D) To increase the absorption of glucose and fatty acids through cell

130. Diabetes mellitus is due to lack of
(A) Starch in blood
(B) Trypsin in pancreatic juice
(C) ADH reaching in kidneys
(D) Insulin in blood