BIOLOGY

BOOKS - MTG BIOLOGY (HINGLISH)

CHEMICAL COORDINATION AND INTEGRATION

Chemical Coordination And Integration

1. Endorine glands have___ to carry their secretions to the specific organ.

A. capillaries

B. tubules

C. no ducts

D. ducts

Answer: C

Watch Video Solution

2. Which of the following statements regarding hormones is incorrect?

A. Hormones are non-are non-nutrient chemicals which acts as intercellular messengers.

B. Hormones are molecules of low molecular weight and are produced in traces.

C. Hormones provide enrgy and alos effect growth and metabolic activities of target cell.

D. Many hormones are produced in inactive from.

Answer: C

Watch Video Solution

3. Enzymes, vitamins and hormones can be classified into a single category of biological chemicals, because all of these

A. help in regulating metabolism

B. are exclusively synthesized in the body of a living organism as at present

C. are conjugaed proteins

D. enhance oxidative metabolism.

Answer: A

4. Which one of the following statements is correct?

A. Endocrine glands regulate the neural activity, but not vice versa.

B. Neurons regulate endocrine activity, but not vice versa.

C. Endocrine glands regulate the neural activity, and the nervous system regulates endocrine glands.

D. Neither hormones control neutral activity nor the neurons control endocrine activity.

Answer: C

Watch Video Solution

5. Secretion of which of the following is under control of neurosecretory nerve cells?

A. Pineal

B. Adrenal cortex

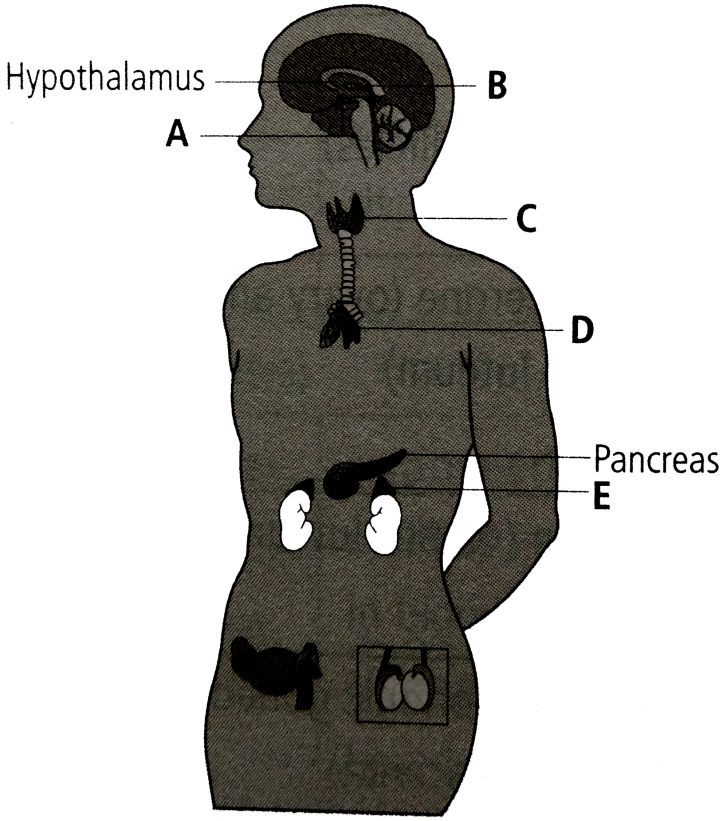
C. Anterior pitutary

D. Thymus

Answer: C

Watch Video Solution

6. The given figure shows main endocrine glands in human body identify A to E and select the correct option.



A.

A	B	C	D	E
Pineal	Pituitary	Thyroid and parathyroid	Thymus	Adrenal

B.

A	B	C	D	E
Pituitary	Pineal	Thyroid and parathyroid	Adrenal	Thymus

C.

A	B	C	D	E
Pituitary	Pineal	Thyroid and parathyroid	Thymus	Kidney

D.

A	B	C	D	E
Pituitary	Pineal	Thyroid and parathyroid	Thymus	Adrenal

Answer: D

Watch Video Solution

7. What is the effect of GnRH produced by hypothalamus?

A. Stimulates the synthesis and secretionof androgens

B. Stimulartes secretion of milk in mammary glands

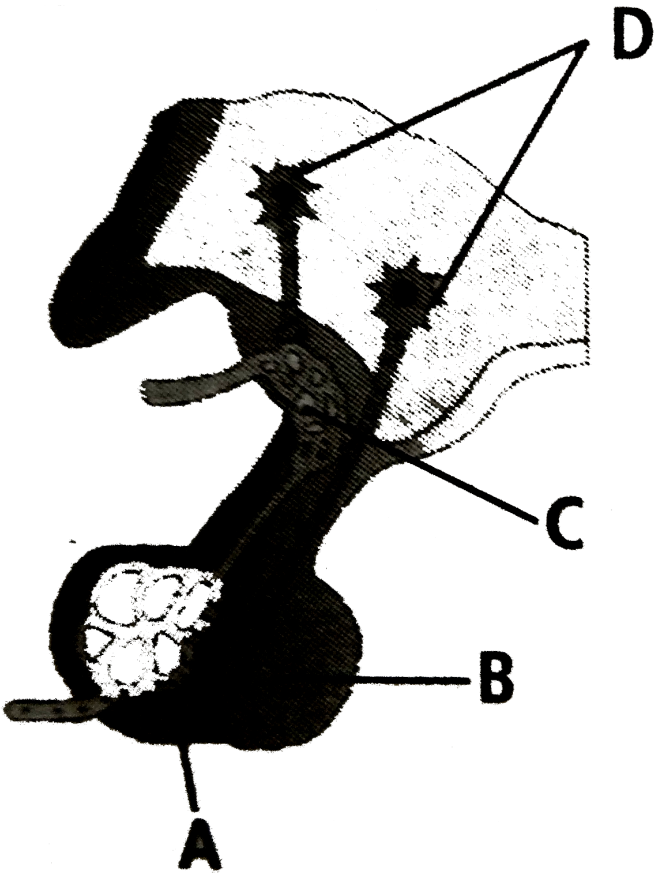
C. Stimulartes fetal ejection reflex.

D. Stimulates synthesis of carbohydrates from non=carbohydrates in liver

Answer: A

Watch Video Solution

8. Select the option that correctly identifies the labels A,B, C and D in the given diagram.



A.

A	B	C	D
Anterior pituitary	Posterior	Blood vessel	Thalamus

B.

A	B	C	D
Posterior pituitary	Anterior pituitary	Hypothalmus	Thalamus

C.

A	B	C	
Anterior pituitary	Poseterior pituitary	Portal circulation	Hypot

D.

A	B	C	D
Hypothalamic neurons	Poseterior pituitary	Anterior pituitary	ci

Answer: C

Watch Video Solution

9. TSH (thyroid stimulating hormone) is produced by

A. adrenal cortex

B. middle pituitary lobe

C. anterior pituitary lobe

D. posterior pituitary lobe.

Answer: C

Watch Video Solution

10. Adrenocorticotropic hormone is secreted by

A. thyroid

B. Adrenal cortex

C. pancreas

D. anterior pituitary.

Answer: D

Watch Video Solution

11. MSH is secreted by

A. anterior lobe of pituitary

B. middle lobe of pituitary

C. posterior lobe of pituitary

D. endostyle

Answer: B

Watch Video Solution

12. FSH is secreted by

A. anterior lobe of pituitary

B. hypothalamus

C. gonads

D. posterior lobe of pituitary.

Answer: A

Watch Video Solution

13. Which of the following statements about 'neurohypophysis' is correct?

A. It stores the hormones produced by adenohypophysis.

B. It is poorly developed and functionless in humans.

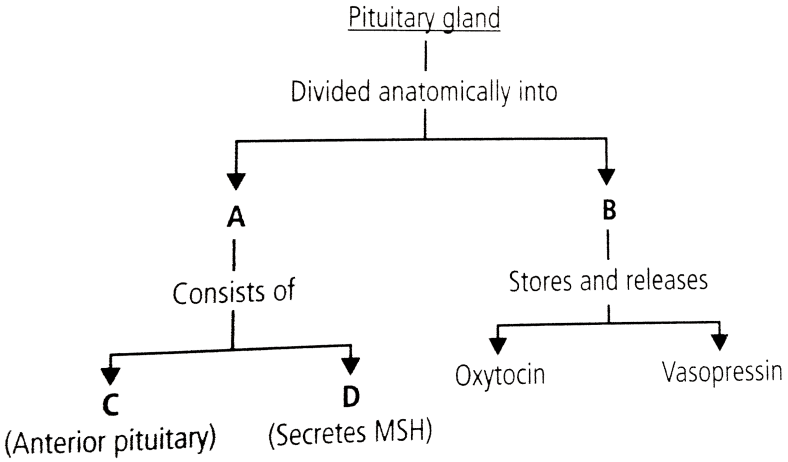
C. It stores and releases hormones secreted by hypothalamus.

D. It secretes its own hormones.

Answer: C

Watch Video Solution

14. Identify A,B,C and D in the given flow chart and slect the correct option.



A.

A	B	C	D
Neurohypophysis	Adenohypophysis	Parsdistalis	Pars intermedi

B.

A	B	C	D
Adeno-hypophysis	Neurohypophysis	Pars intermedia	Pars dista

C.

A	B	C	D
Adenohypophysis	Neuro-hypophysis	Parsdistails	Pars interme

D.

A	B	C	D
Neuro-hypophysis	Adeno-hypophysis	Pars intermedia	Pars dist

Answer: C

Watch Video Solution

15. With reference to the pituitary, which of the following statements is correct?

A. Neurohypophysis synthesis vasopressin and oxytocin.

B. Adenohypophysis stores TSH and STH secreted by neurohypophysis.

C. Neurohypophysis collects and stores vasopressin and oxytocin.

D. Adenohypophysis secretes vasopressin and oxytocin.

Answer: C

Watch Video Solution

16. Pituicytes are under the control of

A. adenohypophysis

B. hypothalamus

C. Neurohypophysis collects and stores vasopressin and oxytocin.

D. both a and c

Answer: B

Watch Video Solution

17. Which of the following hormones does not have a particular target organ in the body?

A. Growth hormone

B. TSH

C. Oxytocin

D. FSH

Answer: A

Watch Video Solution

18. Oxytocin

A. Progesterone

B. LH

C. Prolactin

D.

Answer: D

Watch Video Solution

19. Identify from the following, a hormone produced by the pituitary gland in both males and femals but functional only in females.

A. Vasopressin

B. Relaxin

C. Prolactin

D. Somatotropic hormone

Answer: C

Watch Video Solution

20. Excess secretion of growth hormone in adults leads to _____.

A. acromegaly

B. goitre

C. gigantism

D. dwarfism

Answer: A

Watch Video Solution

21. The gonadotropic hormones are secreted by

A. aneterior lobe of pituitary

B. intersttitial cells of testes

C. aderenal cortex

D. posterior part of thyroid.

Answer: A

Watch Video Solution

22. LH and FSH are collectively called

A. somatotropins

B. oxytocin

C. gonadotropins

D. luteotropic hormones.

Answer: C

Watch Video Solution

23. Sertoli cells are regulated by the pituitary hormone known as

A. LH

B. FSH

C. GH

D. prolactin.

Answer: B

Watch Video Solution

24. Ovulation in females in under the control of

A. ADH and LH

B. LH

C. TSH and LH

D. LTH and TSH.

Answer: B

Watch Video Solution

25. Secretion of progesterone by corpus luteum is initiated by

A. testosterone

B. thyroxine

C. MSH

D. LH.

Answer: D

Watch Video Solution

26. Mathc column I with column II and select the correct option from the given codes.

Column I	Column II
FSH	(i)Transported axonaily to neurohypophysis from h
MSH	(ii)Acts on melanocytes and regulates pigmentatio
Vasopression (ADH)	(iii)Stimulates the growth and development of ova
Pars intermedia	(iv)In humna, it is almost merged with pars distali

A. iii,ii,i,iv

B. i,ii,iii,iv

C. iv,iii,ii,i

D. iii,ii,iv,i

Answer: A

Watch Video Solution

27. The function of oxytocin is to help in

A. child birth

B. gametogenesis

C. growth

D. all of these

Answer: A

Watch Video Solution

28. Diabetes insipidus occurs due to the hyposecretion of

A. thymosine

B. oxytocin

C. growth

D. all of these

Answer: D

Watch Video Solution

29. The hormone, which is related to the urine concentration in mammals, is

A. antiduretic hormone

B. testosterone

C. oxytocin

D. all of these

Answer: A

Watch Video Solution

30. Adh

A. increases water absorption

B. decreases water absorpiton

C. synthesis salt

D. controls sugar level of blood.

Answer: A

Watch Video Solution

31. Melatonin is secreted by

A. pineal body

B. skin

C. Pituitary gland

D. thyroid.

Answer: A

Watch Video Solution

32. The function of pineal body is to

A. lighten the skin colour

B. control sexual behaviour

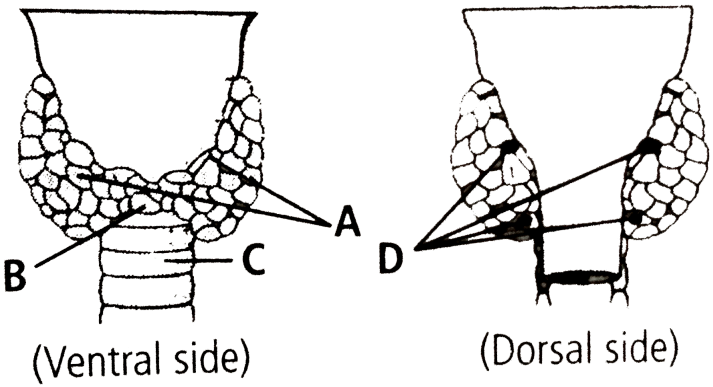
C. regulate the period puberty

D. all of these

Answer: D

Watch Video Solution

33. Observe the given figures and select the option that correctly identies the labers A,B,C and D.



A. A Parathyroid gland B Isthmus C Trachea D Thyroid gland

B. A Thyroid gland B Isthmus C Trachea D Parathyroid gland

C. A Thyroid gland B Isthmus C Larynx D Parathyroid gland

D. A Thyroid gland B Corpus luteum C Trachea D Parathyroid gland

Answer: B

Watch Video Solution

34. Which one of the following endocrine glands stores its secretion in the extracellular space before discharging in into the blood?

A. Testis

B. Thyroid

C. Pancreas

D. Adrenal

Answer: B

Watch Video Solution

35. Goitre is a pathological condition associated with

A. glucagon

B. progesterone

C. thyroxine

D. testosterone.

Answer: C

Watch Video Solution

36. Exophthalmic goitre is also called____.

A. Addison's disease

B. diabetes insipidus

C. Grave's disease

D. acromegaly

Answer: C

Watch Video Solution

37. The hormone which regulates the basal metabolism in our body is secretd from

A. adrenal cortex

B. pancreas

C. pituitary gland

D. thyroid.

Answer: D

Watch Video Solution

38. What is the function of calcitonin?

A. it increaes calcium level in blood.

B. It decreases calcium level in blood

C. It stimulates steroid synthesi.

D. In increases absorption of water in kidney tubules.

Answer: B

Watch Video Solution

39. Which hormone promotes cell division, protein synthesis and bone growth?

A. PTH

B. ACTH

C. ADH

D. GH

Answer: D

Watch Video Solution

40. Which of the following statements is correct for parathormone?

A. It increases blood calcium level and decreaes calcium store of the bone.

B. It decreases blood calcium level and increases calcium store of the bone.

C. It increaes blood glucose level and decreaes calcium store of the bone.

D. If decrease blood glucose level and increases calcium store of the bone.

Answer: A

Watch Video Solution

41. The blood calcium level is lowered by the dificiency of

A. thyroxine

B. calcitonin

C. parathormone

D. both a and b

Answer: C

Watch Video Solution

42. Ca^{2+} level in body is controlled by

A. thyroid gland

B. parathyroid gland

C. adrenal gland

D. both a and b

Answer: D

Watch Video Solution

43. A person is having problem with calcium and phosphorus metablism in his body which one of the following glands may not be functionoing properly?

A. Parotid

B. Pancreas

C. Adrenal cortes

D. Parathyroid

Answer: D

Watch Video Solution

44. Increase in bleeding time and delay in blood coagulation is due to the deficiency of which hormone?

A. Adrenaline

B. Noradrenaline

C. Parathormone

D. Thyroxine

Answer: C

Watch Video Solution

45. Which gland atrophies in adults?

A. Pancreas gland

B. Thymus gland

C. Adreanal gland

D. Thyroid gland

Answer: B

Watch Video Solution

46. Which one of the following is termed temporary gland?

A. Pineal

B. Thymus gland

C. Pancreas

D. Kidney

Answer: B

Watch Video Solution

47. Adrenals are located above

A. stomach

B. liver

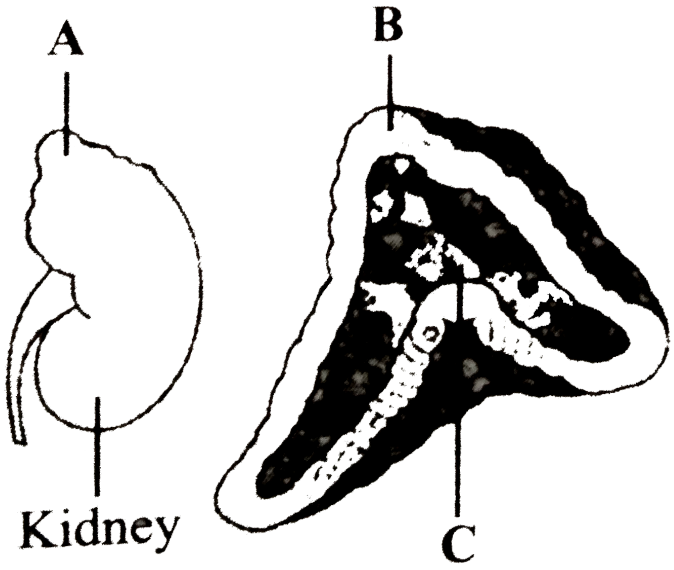
C. pancrease

D. kidney.

Answer: D

Watch Video Solution

48. Identify the parts labelled A,B and C in the given figure and select the correct option (second figure is the cross section of 'A').



A. $\begin{matrix} A & B & C \\ \text{Adrenal gland} & \text{Cortex} & \text{Medulla} \end{matrix}$

B. $\begin{matrix} A & B & C \\ \text{JGA} & \text{Cortex} & \text{Medulla} \end{matrix}$

C. $\begin{matrix} A & B & C \\ \text{Adrenal gland} & \text{Medulla} & \text{Cortex} \end{matrix}$

D. $\begin{matrix} A & B & C \\ \text{Adrenal gland} & \text{Pars distalis} & \text{Pars intermedia} \end{matrix}$

Answer: A

Watch Video Solution

49. Underproduction of hormones by adrenal cortex causes _____.

A. Addison's disease

B. diabetes mellitus

C. diabetes insipidus

D. Grave's disease

Answer: A

Watch Video Solution

50. Feeling the tremors of an earthquake, a scared resident of the seventh floor of a multi-storeyed building starts climbing down the stairs rapidly. Which hormone initiated this action?

A. Adrenaline

B. Glucagon

C. Gastrin

D. Thyroxine

Answer: A

Watch Video Solution

51. Which of the following is called emergency gland of the body?

A. Testis

B. Adrenal cortex

C. Thymus

D. Pituitary

Answer: B

Watch Video Solution

52. Adrenaline directly affects

A. SA node

B. $\beta -$ cels of Langerhans

C. dorsal root of spinal nerve

D. epithelial cells of stomach.

Answer: A

Watch Video Solution

53. Which hormone causes dilation of blood vessels, increased oxygen consumption and glucogensis?

A. Glucagon

B. ACTH

C. Insulin

D. Adrenaline

Answer: D

Watch Video Solution

54. Reabsorpiton of Na^+ is controlled by which one of the following hormones?

A. Aldosterone

B. Estrogen

C. Glucocorticoids

D. Tstosterone

Answer: A

Watch Video Solution

55. Which of the following is a mineralocortiocid?

A. Testosterone

B. Progesterone

C. Adrenaline

D. Aldosterone

Answer: D

Watch Video Solution

56. In which of the following options, hormone is not matching with its source and function?

	Hormone	Source	Function
A.	Glucocorticoids	Adreal Cortex	Produces anti inflammatory reactions
	Hormone	Source	Function
B.	Vasopressin	Posterior pituitary	Stimulates resorption of water and electrolytes
	Hormone	Source	Function
C.	Parathyroid hornone	Thyoid	Decreases the blood Caˆ(2+) level
	Hormone	Source	Function
D.	Melationin	Pineal gland	Maintains sleep-wake Cycle

Answer: C

Watch Video Solution

57. Mathc column I with column II and select the correct option from the codes given below.

Column I	Column II
Thyroid	(i) Acts on the renal tubules
Adrenal	(ii) Regulates blood calcium level
Pituitary	(iii) Maintains diurnal rhythm of our body
Pineal	(iv) Acts on the melanocytes

A. iv,iii,ii,i

B. iii,iv,i,ii

C. iv,ii,iii,i

D. ii,i,iv,iii

Answer: D

Watch Video Solution

58. Besides corticotropin releasing hormone (CRH) which other hormone also stimulates the release of adrenocorticotropic hormone (ACTH) ?

A. Glucagon

B. Insulin

C. Aldosterone

D. Epinephrine

Answer: D

Watch Video Solution

59. The islets of Langerhans are found in

A. Liver

B. pancreas

C. stomach

D. alimentary canal.

Answer: B

Watch Video Solution

60. Insulin is secreted by ___ of pancreas.

A. $\alpha -$ cells`

B. $\partial -$ cells

C. $\beta -$ cells

D. none of these

Answer: C

Watch Video Solution

61. The source of somatostatin is same as that of

A. thyroxine and calcitonin

B. insulin and glucagon

C. somatotropin and prolactin

D. vasopressin and adrenline.

Answer: B

Watch Video Solution

62. Which of the following mathc is correct?

Hormone	Effect
Oxytocin	Milk ejection hormone
Glucagon	Decreases blood sugar level
Adrenaline	Decreases heart rate

None

Hormone	Effect
Oxytocin	Milk ejection hormone
Glucagon	Decreases blood sugar level
Adrenaline	Decreases heart rate

None

Watch Video Solution

63. Which of the following statements regarding glucagon is false?

A. It is secreted by $\alpha -$ cells of langerhans.

B. It acts antagonistically t insulin.

C. It decrease blod sugar level.

D. The gland responsible for its secretion is a heterocrine gland.

Answer: C

Watch Video Solution

64. Select the correct mathcing of a hormone, its source and function

A.

Hormone	Source	Function
Vasopressin	Posterior pituitary	Increases loss of water through ur

B.

Hormone	Source	Function
Norepi-nephrine	Adrenal medulla	Increases heart beat rate of repi

C.

Hormone	Source	Function
Glucagon	Beta-cells of islets of Langerhans	Stimulates glycogenoly

D.

Hormone	Source	Functio
Prolactin	Posterior pituitry	Regulates growth of mammary gland

Answer: B

Watch Video Solution

65. Which of the following is synthesised in both the brain and endocrine glands?

A. ACTH

B. Cortisol

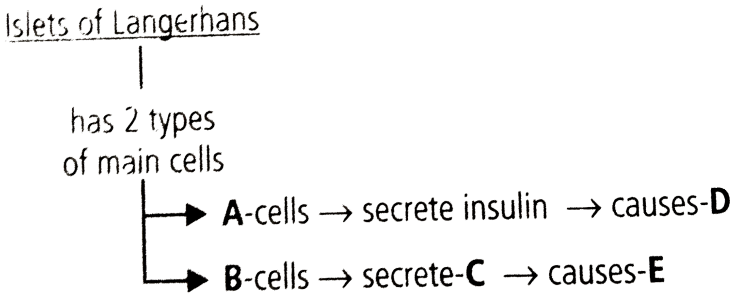
C. Oxytocin

D. Somatostatin

Answer: D

Watch Video Solution

66. Select the option that correctly identifies A to E in the given flow char.



A. A B C D E
α β Glucagon Hyperglycaemia Hypoglycaemia

B. A B C D E
β α Cortisol Hypoglycaemia Hyperglycaemia

C. A B C D E
β α Cortisol Hyperglycaemia Hyporglycaemia

D. A B C D E
β α Glucagon Hypoglycaemia Hyperglycaemia

Answer: D

Watch Video Solution

67. Which one of the following is not the function of insulin?

A. Increaes the permeability of cell membrane to glucose

B. Increases the oxidation of glucose in the cells

C. Initiates the conversion of glycogen to glucose

D. Initiates the formation of hepatic glycogen from excess of glucose

Answer: C

Watch Video Solution

68. Select the mismatched pair from the following.

A. Insulin-Gluconeogenesis

B. Glucagon-Glycogenolysis

C. Oxytocin-Contraction of uterine muscles

D. Prolactin-Milk production in mammary glands.

Answer: A

Watch Video Solution

69. Which of the following is not a characteristic of insulin?

A. It stimulates the process of gluconeogenesis.

B. It binds to glycoprotein receptors on cell membrane.

C. Its deficiency leads to diabetes mellitus.

D. Its oversecretion leads to insulin shock.

Answer: A

Watch Video Solution

70. A patient of diabetes mellitus excretes glucose in urine even when he is kept on a carbhohydrate free diet. It is because

A. fats are catablised in adipose tissues to form glucose

B. amino acids are catabolised in kidney to from glucose

C. amino acids are dischaerged in blood steam from liver

D. glycogen from muscles is released in blood stream.

Answer: A

Watch Video Solution

71. Given below are your statements (A-D) each with one or two balnks. Select the option which ocrrectly fills the blanks in any two statements.

(A) Thymus secretes (i) which help in differentiating of ii

(B) The adrenal medulla secretes i which stimulates the breakdown of ii to increased the blood glucose concentration during emergensy situations.

(C) The Leydig's cells or i present in the intertubular spaces in testis, produce a group of hormones called ii

(D) Thyroid gland secretes i and trliodothyronine which contain ii

A. i melatonin, ii T-lymphocytes

i adrenaline, ii fat

B. i catecholamine, ii glycogen

i interstitial cells, ii LH

C. i catecholamine, ii glycogen

i thyroxine, ii iodine

D. i parathyroid hormone, ii calcium

i thymosin, ii B-lymphocytes

Answer: C

Watch Video Solution

72. Which one of the following statements is incorrect?

A. Glucagon is secreted by pancreas.

B. Androgens are produced by ovary.

C. Thyrogens is secreted by thyroid.

D. Oxytocin is secreted by pituitary.

Answer: B

Watch Video Solution

73. Read the given statements that define functions of a particular hormone.

(i) Regulates the development, maturation and functions of epiddymis, vas deferens, seminal vesicle, prostrate gland, urethra, etc.

(ii) Stimulates muscular growth of facial and ailiary hair, aggressiveness, low pitch of voice, etc.

(iii) Stimulates spermatogenesis.

(iv) Act on CNS and sexual behaviour (Libido).

(v) Produce anabolic (synthetic) effect on protein and carbohydrate metablosim.

(vi) The Leydig,s cells/intestitial cells (present in interbular space). Secrete this hormone under the influence of LH.

Which of the following hormones is referred here?

A. FSH

B. Progestrone

C. Androgen

D. Melatonin

Answer: C

Watch Video Solution

74. Mathc Column I with column II and select the correct option from the codes given below.

Column I	Column II
Testis	(i)Pigmentation
Ovaries	(ii)Atrosphies in adult
Thymus	(iii)Estrogen
Melanin	(iv)Testosterone

A. iii,iv,i,ii

B. ii,iii,iv,i

C. iv,iii,ii,i

D. i,iv,ii,iii

Answer: C

Watch Video Solution

75. Given below is an incomplete table about certain hormones, their surce glands and one major effect of each on the body in humans. Select the option that correctly fills the blanks A,B and C

A. $\begin{matrix} A & B & C \\ \text{Placenta} & \text{Glucagon} & \text{Calcitonin} \end{matrix}$

B. $\begin{matrix} A & B & C \\ \text{Ovary} & \text{Glucagon} & \text{Growth hormone} \end{matrix}$

C. $\begin{matrix} A & B & C \\ \text{Placenta} & \text{Insulin} & \text{Vasopressin} \end{matrix}$

D. $\begin{matrix} A & B & C \\ \text{Ovary} & \text{Insulin} & \text{Calcitonin} \end{matrix}$

Answer: B

Watch Video Solution

76. Mathc column I with column II and select the correct option from the given codes.

`{:("column I","Column II"),("Hypothalamus",(i)"Relaxin"),("Anterior",

(ii)"Progesterone"),("Testis",(iii)"Androgen"),("Ovary",(iv)"Androgen"),(,

(iv)"Gonadotropin releasing hormone"):}

A. v,iii,iv,ii

B. v,iii,ii,iv

C. i,ii,iv,iii

D. iii,v,iv,ii

Answer: A

Watch Video Solution

77. Which one of the following paris is incorrectly mathced?

A. Glucagon-Beta cells(source)

B. Somatostatin-Delta cells (Source)

C. Corpus luteum-Relaxis (secretion)

D. Corpus luteum-Relaxin (secretion)

Answer: A

Watch Video Solution

78. Which of the following hormones is necessary for the development of secondary sexual characters in human beings?

A. Estrogen

B. FSH

C. Testosterone

D. Both a and c

Answer: D

Watch Video Solution

79. Match the sourcegland with its respective hormone and functon and select the correct option

A. 

B. 

C. 

D. 

Answer: B

Watch Video Solution

80. Mathc colum I with Column II and select the correct option from the given codes.

Column I	Column II
Oxytocin	(i)Stimulates ovulation
Prolactin	(ii)Implantation and maintnance of pregnancy
Lutensing	(iii)Milk production in mammary glands
Progesterone	(iv)Uterine contraction during labour
	(v)Reabsorption of water by nephrons

A. v,iv,i,ii

B. `iv,i,ii,iii

C. iv,iii,i,ii

D. v,iii,ii,i

Answer: C

Watch Video Solution

81. Low level of progesterone and estrogen in blood stimulate

A. FSH-RH production

B. LH production

C. GH production

D. all of these

Answer: A

Watch Video Solution

82. Mathc column I with column II and select the corect option from the codes given below

Column I	Column II
ANF	(i)Regulates blood calcium levels
MSH	(ii)Decreases blood pressure
GIP	(iii)Pigmentation
CT	(iv)Inhibits gastric secretion

A. iv,i,ii,iii

B. ii,i,iv,iii

C. iv,i,iii,ii

D. ii,iii,iv,i

Answer: D

Watch Video Solution

83. Which part of body secretes the hormone secretin?

A. Stomach

B. Oesophagus

C. Lleum

D. Duodenum

Answer: D

Watch Video Solution

84. Select the correctly mathched pair.

A.
Pineal galnd – Does not influence menstrual cycle
Corpus luteum – secretes oxytocin
Intersitial cells – Erythropoietic
Cholecystokinin – Stimulates pancreatic enzyme secretions

B.
Pineal galnd – Does not influence menstrual cycle
Corpus luteum – secretes oxytocin
Intersitial cells – Erythropoietic
Cholecystokinin – Stimulates pancreatic enzyme secretions

C.
Pineal galnd – Does not influence menstrual cycle
Corpus luteum – secretes oxytocin
Intersitial cells – Erythropoietic
Cholecystokinin – Stimulates pancreatic enzyme secretions

D.
Pineal galnd – Does not influence menstrual cycle
Corpus luteum – secretes oxytocin
Intersitial cells – Erythropoietic
Cholecystokinin – Stimulates pancreatic enzyme secretions

Answer: D

Watch Video Solution

85. Read the given paragraph and select the option that correctly fills the blanks in it. Hormones produce their effect on target tissue by binding to specific A called hormone receptors located in the target tissues only water soluble hormones usually need B receptor that generate C messenger for regulating through cell membrane and bind to E receptors, mostly nuclear receptors. The hormone receptor complex enter the nucleus and moslty regulate gene expression or chromosome function by interaction of hormone receptor complex with the genone.

A.

A	B	C	D	E
proteins	membrane-bound	second	lipid	Intracellular

B.

A	B	C	D	E
lipids	membrane-bound	second	water	intracellular

C.

A	B	C	D	E
proteins	intracellular	second	lipid	extracellular

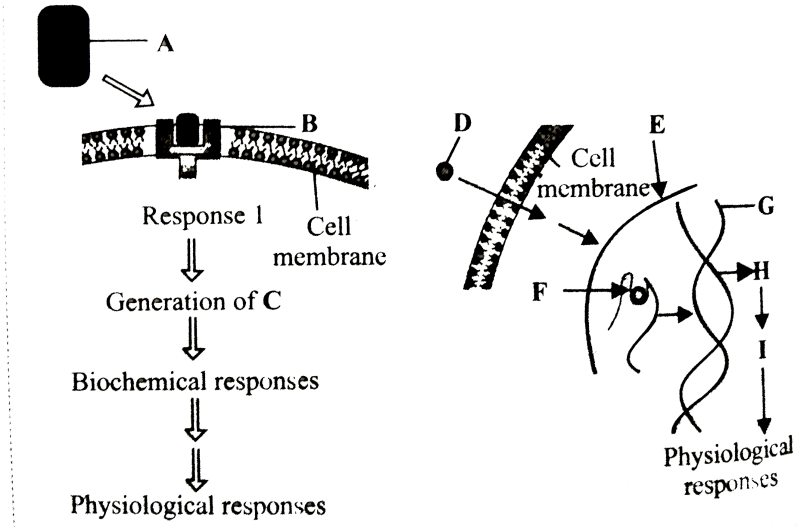
D.

A	B	C	D	E
proteins	membrane	primary	lipid	intracellular

Answer: A

Watch Video Solution

86. The given diagram represents the mechasim of action for two categories of hormones. Which of the following option correctly identifies the labels A to I?



A. A-Steroid hormone, B-Receptor, C-Secondary messenger,D-Non-steroid hormone, E-Nucleus F-Hormone-receptor complex,G-0Genome,H-mRNA I-protein

B. A-Non-steroid hormon,B-Receptor,C-secondary messenger, D-steroid hormone,E-Nucleus, F-Hormone-receptor complex,G-genome, H-mRNA, I-protein

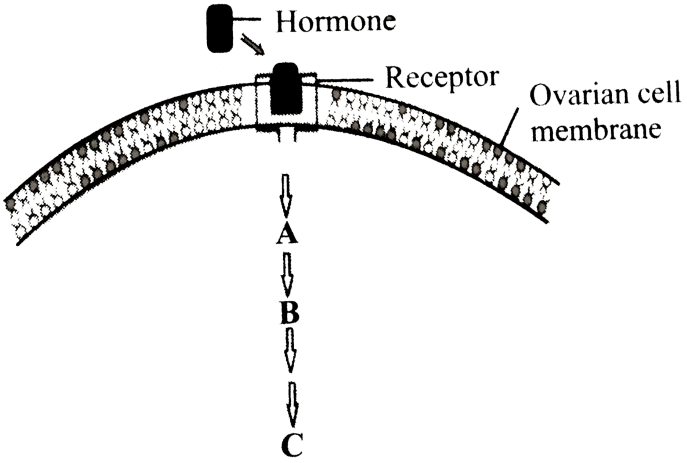
C. A-Steroid hormone, B-Receptor,C-Primary messenger D-Non-steroid hormone, E-Nucleus, F-Hormone-receptor complex, G-Genome, H-mRNA-Iprotein.

D. A-steroid hormone, B-Enzyme,C-Secondary messenger, D-Non-steroid hormone,E-Nucleus, F-Hormone-receptor complex, G-Genome, H-mRNA,I-protein

Answer: B

Watch Video Solution

87. Refer to the given diagrammatic representation of the mechanism of action of a protein hormone.



In which of the following options correct labelling of A,B and C is given?

A.

A	B	C
Generation of second messenger	Physiological	Biochemical respons

B.

A	B	C
Activation of genes	Biochemical responses	Generation of second m

C.

A	B	C
Generation of second messenger	Biochemical responses	Physiologic

D.

A	B	C
Biochemical	Activation of genes	Physiological responses

Answer: C

Watch Video Solution

88. What is the correct to say about the hormone action in humans?

A. Glucagon is secreted by $\beta-$ cells of islets of Langerhans and stimulated glycogenolysis.

B. Secretion of thymosin is stimulated with aging.

C. In females, FSH first binds with specific receptors on ovarian cell membrane.

D. FSH stimulates the secretion of androgens.

Answer: C

Watch Video Solution

89. According to the accepted concept of hormone action, if recptor molecules are removed from target organs, then the target organ will

A. continue to respond to the hormone without andy difference

B. not respond to the hormone

C. continue to respond to the hormone but will require

D. higher concentration

Answer: B

Watch Video Solution

90. Which one of the following is proteinaceous in chemical nature?

A. Thyroxine

B. FSH

C. Progesterone

D. Oxytocin, secreted by the pituitary.

Answer: B

Watch Video Solution

91. Insulin is a/an

A. polysaccharide

B. protein

C. amino acid derivative

D. lipid.

Answer: B

Watch Video Solution

92. Insulin receptors are

A. extrinsic proteins

B. intrinsic proteins

C. G-proteins

D. trimeric proteins.

Answer: A

Watch Video Solution

93. All hypophysiotropic hormones are peptides except

A. conrticotropin releasing hormone

B. growth hormone inhibitory hormone

C. somatostatin

D. prolacting release inhibiting hormone.

Answer: D

Watch Video Solution

94. Which of the following hormones is a steroid?

A. Epinephrine

B. Throxine

C. Estrogen

D. Gonadotropin

Answer: C

Watch Video Solution

95. Hormones of which of the following endocrine glands lacks peptides, amines and sulphur?

A. Thyroid and adrenal gland

B. Anterior pituitary

C. Testes

D. Poseterior pituitary and pancreas

Answer: C

Watch Video Solution

96. Which of the following hormones is not a polypeptide?

A. LH

B. FSH

C. Insulin

D. Thyroxine

Answer: D

Watch Video Solution

97. The given table enlists various hormones and their chemical nature. Select the option which completes the table

A.

(i)	(ii)	(iii)	(iv)
Cortisol	Steroid	Polypeptide	Estradiol

B.

(i)	(ii)	(iii)	(iv)
Oxytocin	Protein	lodothyronine	Epinephrine

C.

(i)	(ii)	(iii)	(iv)
Cortisol	Protein	Amine	Estradiol

D.

(i)	(ii)	(iii)	(iv)
Oxytocin	Steroid	lodothyronine	Epinephrine

Answer: D

Watch Video Solution

98. Which one of the following hormones never reaches to cytoplasm?

A. Estrogen

B. FSH

C. Progesterone

D. testosterone.

Answer: B

Watch Video Solution

99. The signal trasnduction of steroid hormone across cell is thorugh

A. binding of hormone to the cytoplasmic receptor and the complex binds to hormone response element on DNA within promoter DNA

B. binding of hormone to the transmembrane receptor which intiates the production of second messenger that activates enzymes which further activates transcription factors

C. binding of hormone ot the transmembrane receptor which diffuse inside the cell cytoplasm and then activates the enzyme necessary for the activation of transcription factors.

D. binding of hormone to the cytoplasmic r aceptor that initiates the production of second messenger which activates enzymes that further activates transcription factors.

Answer: A

Watch Video Solution

100. Estrogen and testosterone are steroid hormones, and most likely bind to

A. membrane ion channel

B. enzyme-linked membrane receptors

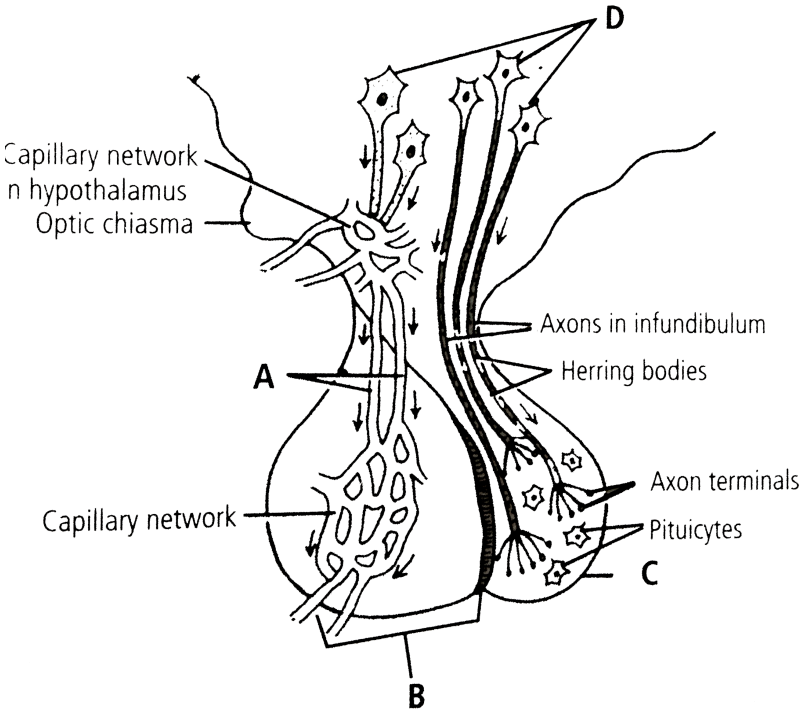
C. G-protein coupled membrane recepitors

D. cytoplasmic receptors.

Answer: D

Watch Video Solution

101. Refer to the given figure of pituitary gland and select the correct option for the question that follows.



What will be the effect if part C is been removed?

A. Oxytocin and ADH will not be synthesised.

B. Oxytocin and ADH will be synthesised but could not be stored.

C. only synthesis of oxytocin will occurs

D. Only synthesis of ADH will occurs.

Answer: B

Watch Video Solution

102. The given figure shows_____

A. the major target sites and the metabolic actions of the anabolic homone secreted by the beta cells of heterocrine gland

B. the major target sites and the metabolic action of the hormone secreted by alpha cells of pancreas

C. the major target sites and the functions of the hormone secreted by the anterior pituitary gland.

D. the major target sites and the metabolic actions of the hormone secreted by the parafollicular C cells

Answer: A

Watch Video Solution

103. A scientist was studying the production of a protein that was released by an animal cell into a culture medium, she found that the protein only appeared in the culture medium after the added a few drops of a hormone to the cell. Before adding the hormone, she labelled the protein inside the cell with a fluorescent dye and looked at the cell under the lgiht microscope. The dye was seen in flattened sheets and tube. like structures throughout the cell, and in stacks of flattened sac-like structures. after adding the hormone, the dye was aslo seen as small dots clustered against the cell membrane, Which statement most likely explains these observations?

A. The hormone stimulates protein synthesis in the cell vacuole, the protein is then passed to the Golgi apparatus, and eventually passess through the cell membrane by passive diffusion.

B. The hormone triggers the synthesis of the protein in the endoplasmic reticulum and it is then secreted outside of the cell via channel proteins in the cell membrane

C. The protein is made in the endoplasmic reticulum, is passed to the Golgi appartus and is secreted through hormone-stimulated exocytosis.

D. The protein is made in the Golgi apparatus, is passed to the endoplasmic recticulum and is secreted through hormone-stimulated pinocytosis.

Answer: C

Watch Video Solution

104. Pancreas has two types of cells namely islets of Langerhans and acinar cells. In the early years of research on diabetes, extract of this gland was tested on diabetic patients. Resutls are tabulated below. (i) Extract of pancereas -

(ii) Islet cell extract +

(iii) Acinar cell extract -

The correct interpretation is that

A. anti-diabetic factor in extract'C' was inactivated by extract 'A'

B. anti-diabetic factor present in 'A' was destroyed by 'B'

C. both 'A' and 'C' destoyed the anti=diabetic factor present in 'B'

D. anti diabetic factor present in 'B' was destroyed by

Answer: D

Watch Video Solution

105. The aneterior pituitary gland facilatetes growth of an individual by release of the humna growth hormone (HGH) which in turn is regulated by two hormones namely growth homone releasing hormone (GHRH) and grwoth hormone inhibiting hormone (GHIH) Imbalnce of these hormones could result in gigantism, dwarfism or acromegaly. Interpret the data given below and select the appropriate statement.

A. 1 and 3 will lead to gigantum while 4 and 5 will show dwarlism.

B. 3 will show gigantism, 1 will show acromegaly and 4 and 5 will show dwarlism.

C. 2,3 and 4 will shwo normal growth.

D. 1 will show gigantism, 3 will show acromegaly and 5 will show dwarfism.

Answer: D

Watch Video Solution

106. Select the right mathc of endocrine gland and their hormones among the options given below:

A. Pineal	(i)Epinephrine
B. Thyroid	(ii)Melatonin
C. Ovary	(iv)Estrogen
D. Adrenal medulla	(iv)Tetraiodothyronise

A. iv,ii,iii,i

B. ii,iv,I,iii

C. iv,ii,I,iii

D. ii,iv,iii,i

Answer: D

Watch Video Solution

107. Which of the following hormones is not secreted by anterior pituitary?

A. Growth hormone

B. Follicle stimulating hormone

C. Oxytocin

D. Adrenocorticotrophic hormone

Answer: C

Watch Video Solution

108. Mary is about to face and interveiw. But during the first five minutes before the interview she experiences sweating hormone is responsible for her resistesness?

A. Estrogen and progesterone

B. Oxytocin and vasopressin

C. Adrenaline and noradrenaline

D. Insulin and glucagon

Answer: C

Watch Video Solution

109. The steroid responsible for balance of water and electrolytes in our body is

A. Insulin-Gluconeogenesis

B. melatonin

C. testosterone

D. Aldosterone.

Answer: D

Watch Video Solution

110. Thymosin is responsible for balance of water and electrolytes in out body is

A. raising the blood sugar level

B. raising the blood calcium level

C. differentation of T-lymphocytes

D. decrease in blood RBC.

Answer: C

Watch Video Solution

111. In the mechanism of action of a protein hormone, one of the second messengers is

A. cyclic AMP

B. insulin

C. T_3

D. gastrin.

Answer: A

Watch Video Solution

112. Leydig cells produce a group of hormones called

A. androgens

B. estrogens

C. aldosterone

D. gonadotropins.

Answer: A

Watch Video Solution

113. Corpus luteum secretes a hormone called

A. prolactin

B. progesterone

C. aldosterone

D. testosterone.

Answer: B

Watch Video Solution

114. Cortisol is secreted from

A. Pancreas

B. thyroid

C. adrenal

D. thymus.

Answer: C

Watch Video Solution

115. A hormone responsible for normal sleep wake cycle is

A. epinephrine

B. gastrin

C. melatonin.

D. insulin.

Answer: C

Watch Video Solution

116. Hormones are called chemical signals that stimulate specific target tissues. Which is the corret location of these receptors in case of protein hormones?

A. Extracellular matrix

B. Blood

C. Plasma membrane

D. Nucleus

Answer: C

Watch Video Solution

117. Choose the correct option among the following.

A. ii,I,iii,iv

B. iv,I,iii,ii

C. I,ii,iii,iv

D. I,iv,ii,iii

Answer: B

Watch Video Solution

118. Which of the following does not play any role in calcium balnce in the human body?

A. Vitamin D

B. Parathyroid homone

C. Thyrocalcitonin

D. Thymosin

Answer: D

Watch Video Solution

119. Which of the following organs in mammals does not consist of acentral medullary rregion surrounded by a cortical region?

A. Ovary

B. Adrenal cortex

C. Liver

D. Kidney

Answer: C

Watch Video Solution

120. Which of the following conditions is not linked to deficiency of thyroid hormone?

A. Cretinism

B. Goitre

C. Myxodema

D. Exopthalmia

Answer: D

Watch Video Solution

121. Assertion: Neurohypophysis is under the direct regulation of the hypothalamus.

Reason: Neurohypophysis stores and releases two hormones called oxytocin and vasopressin which are actually synthesised by the hypothalamus.

Watch Video Solution

122. Assertion: Oxytocin is called 'milk-ejection hormone'

Reason: Oxytocin acts on the smooth muscles of uterus and stimulates its contraction. \

Watch Video Solution

123. Assertion: Melatonin influences the menstrul cycle. Pigmentation and defense capability.

Reason: Melatonin plays an important role in the regulation of diumal rhytm of our body.

Watch Video Solution

124. Assertion: Thyroid hormones promote physical growth and development of mental faculties.

Reason: Hypothyroidism in adults causes retarded sexual development.

Watch Video Solution

125. Assertion: PTH is a hypercalcemic hormone.

Reason: Thymus degenerates in old individuals.

A. Assertion and reason are both true

B. Assertion and reason are both false

C. assertion is true but the reason is false

D. assertion is false but the reason is true

Answer: A

Watch Video Solution

126. Assertion: Immune response of old persons become weak.

Reason: Thymus degenerates in old individuals.

Watch Video Solution

127. Assertion: Adrenal cortex is not vital for survival and may be removed without subsequently leading to death.

Reason: Adreanl cortex secretes a number of steroid hormones which have only cumulative effects on the hormones of other glands.

Watch Video Solution

128. Assertion: Adrenal medullary hormones help in combating the stress condition.

Reason: Both adrenaline and noradrenaline act on same organs and produce simlar effects.

Watch Video Solution

129. Assertion: Cortisol produces anti-inflammatory reactions and suppresses the immune response.

Reason: Cortisol stimulates gluconeogenesis lipogenesis and proteogenesis.

Watch Video Solution

130. Assertion: Insulin stimulates glycogenolysis and gluconegensis and gluconegenesis resulting in hyperglycemia.

Reason: Prolonged hyperglycemia leads to complex disorder called diabetes insipidus.

Watch Video Solution

131. Assertion: Insulin is an anabolic hormone.

Reason: A fall in blood amino acids also increaes insulin secretion.

Watch Video Solution

132. Assertion: Androgens stimulate muscular growth.

Reason: Androgens produce anablic effects on protein and carbohydrate metablism.

Watch Video Solution

133. Assertion: The estrogen level falls after menopause.

Reason: The estrogen is synthesised and secreted mainly by uterine

lining.

Watch Video Solution

134. Assertion: Renal cells are involved in stimulating the formation of RBCs.

Reason: The juxtaglomerular cells of kidney produce erythropoietin.

Watch Video Solution

135. Assertion: Insulin forms hormone receptor complex which regulate gene expression.

Reason: Insulin is a peptide hormone which can easily pass cell membrane to interact with hormone-receptor complex.

Watch Video Solution