



BIOLOGY

BOOKS - AAKASH SERIES

CHEMICAL COORDINATION AND INTERGRATION

Exercise I

1. identify A and B using the given information

	A	В		
*	It regulates and coordinates the cellular activities.	*	It provides a point to point coordination among the organs	
*	The coordination is slow and long lasting.	*	It is fast but short lived.	

A. A-Enzyme

coordination,B-hormonal

coordination

B. A-neural

coordination, B-hormonal

coordination

C. A-Hormonal coordination,B-neural

coordination

D. A-Hormona coordination,B-Enzyme coordination

Answer: C



2. Which one of the following statement is correct?

- A. Endocrine glands regulate neural activity but not vice versa
- B. Neurons regulate endocarine activity,but not vice versa
- C. Endocrine glands regulate neural activity

 ,and nervous system regulates endocrine
 activity
- D. Neither hormones control neural activity

 nor the neurons control endocrine

 activity



3. Which of the following hormones is derived from a single amino acid?

A. thyroxine

B. oxytocin

C. estradiol

D. epinephrine



- **4.** How can enzymes, vitamins and hormones be classified into a single category of biological chemicals?
 - A. help in regulating metabolism
 - B. are exclusively synthesized in the body of
 - living organism as at present
 - C. are conjugated protiens

D. enchance oxidative metabolism

Answer: A



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5. Which one of the following hormones is modified amino acid?

A. Epinophrine

B. progesterone

C. Prostaglandin

D. Estrogen

Answer: A



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6. Fill up the blanks A to C correct combination which A act as --B-- messengers and are produced in -----C---amounts.

A. A-nutrient, B-intercellular, C-trace

B. A-non-nutrient, B-intracellular. C-trace

- C. A-non-nutrient, B-Intercellular, C-trace
- D. A-non-nutrient, B-intercellular, C-large



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7. Select the correct answer related to A and B based on their reactions

	A		В				
*	They are consumed in the reaction	*	They act as catalyst and remain unchanged				
*	They are effective only in low concentration	*	They are more effective in relatively higher concentration				
*	The actions contro- lled by them are not reversible	*	The actions controlled by them are reversible				

- A. A-Hormones, B-vitamins
- B. A-Enzymes, B-Hormones
- C. A-vitamins, B-Hormones
- D. A-vitamins, B-Vitamins

Answer: A



8. "Tropic hormones" Means

A. Pituitary hormones

B. Local hormones

C. Hormones that effect another 'target' endocrine gland

D. Hormones that have receptors on almost all living cells of the body.

Answer: C

- 9. Endocrine signaling is always a
 - A. Electrical
 - B. Mechanical
 - C. Chemical
 - D. Physico-chemical



10. A hormone secreted by non endocrine tissue is

A. Insulin like growth factor (IGF)

B. Calcitriol

C. Cytokine

D. Enzyme

Answer: A



11. Identify the following bio molecules A,B based on their properties

A	В		
*They are rarely synthesized in the body, mostly supplied through food.	* They are synthesized in the body itself.		
* In excess they are excreted, but in deficiency they cause diseases.	* Their excess or deficiency may cause health disorders.		

- A. A-Hormones, B-vitamins
- B. A-Enzymes, B-Hormones
- C. A-vitamins, B-Hormones
- D. A-vitamins, B-cofactors



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12. Match the following columns.

Column - I

- A) Protein hormones
- B) Steroid hormones
- C) lodothyronines hormones
- D) Amino acid derivative hormones

Column - II

- 1) Epinephrine
- Testosterone, progesterone
- 3) Thyroid
- Insulin and glucagon

- C. A-4,B-2,C-3,D-1
- D. A-4,B-2,C-1,D-3



- **13.** Chemically hormones are
 - A. Biogenic amines only
 - B. Protiens ,steriods and bioghenic amines
 - C. Protiens only

D. Steriods only

Answer: B



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14. Hormones are secreted by

A. All living organisms

B. Vertebrates only

C. Inverterbrates

D. All metazoans

Answer: D



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15. Select the incorrect statement

- A. Invertebrates posses very simple endocrine system
- B. Vertebrates posses a large number of chemicals act as hormones

C. Arthropods are the first invertebrates

with well organized endocrine system

D. We get some hormones through the food

Answer: D



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16. Largest endocrine gland in humans

A. Liver

B. Thyroid

- C. Thymus
- D. Pituitary

Answer: B



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17. Number of endocrine glands related to the brain

- A. One
- B. Three

C. Two

D. Five

Answer: B



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Exercise I Hypothalamus

Gonadotropin releasing hormones are formed by

- A. Pituitary
- B. Gonads
- C. Hypothalamus
- D. Placenta



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2. Somatostatin produced by hypothalamus

- A. Stimulates the release of growth hormone
- B. Controls the activity of alpha and beta cells of pancreas
- C. Inhibits the releasse of growth hormone
- D. Controls the reabsorption of water in kidney



3.	Hypothalamus	contains	several	group	of
ne	urosecretory ce				

- A. Tract
- B. Pituitary gland
- C. Nuclei
- D. protoplasm



4. Somatostatin

- A. Actiates the release of growth hormone
- B. inhibits the release of growth hormone
- C. Inhibits the release of enzymes in the digestive tract
- D. activates the release of enzymes pineal gland

Answer: B



5. Large number of hormones are secreted by

A. Pituitary hormones

B. Thyroid

C. Hypothalamus

D. Adrenal

Answer: C



6. Majority of endocrine secretions are released into

A. Arteries

B. Gut

C. Veins

D. All the above

Answer: C



7. Mark the correct sequence of synthesis of hormones in human being.

A. GnRh ightarrow FSH ightarrow Testosterone

B. GnRH $\,
ightarrow\,$ Progesterone $\,
ightarrow\,$ LH

C. GnRH $\,
ightarrow$ LH $\,
ightarrow$ Testosterone

D. TRH ightarrow TSH ightarrow Thyroxine

Answer: C



Exercise I Pituitary Gland

- 1. Pituitary gland is located
 - A. Above epithalamus
 - B. Anterior to pineal body
 - C. Ventral to trachea
 - D. in sella tursica

Answer: D



2. Oxytocin	and	vasopressin	are	transported	to
neurohypo _l	physi	is through			

A. Blood

B. interstitial fluid

C. axons

D. lymph

Answer: C



3. 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



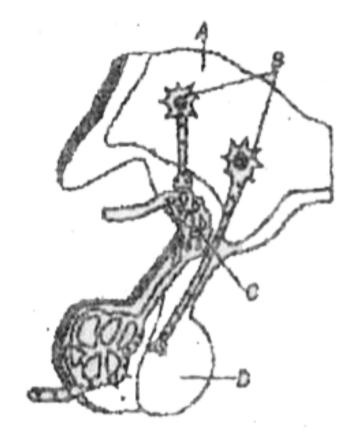
4. In	human	pars	intermedia	is	almost	merged
with						

- A. Pars distalis
- B. pars nervosa
- C. pars tuberalis
- D. posterior pituitary

Answer: A



5. Identify A to D in the given figure and choose the correct combination



A. A-Hypothalamic

neuron,B---

hypothalamus, C-portal

circulation,D-

Posterior pitutary

B. A-Hypothalamus, B-Hypothalamic

neuron,C-Portal Circulation,D-Posterior pituitary

C. A-Hypothalamus ,B-Hypothalamic neuron,

C-Posterior pitutary ,D-Portal Circulation

D. A-Hypothalamus ,B-Hypothalamic

neuron,C-Posterior pituitary ,D-

Neurophypophysis.

Answer: B

6. Resorption of water and electrolytes by distal tublules of kidney and thereby diuresis reducing the loss of water through urine (diuresis) is done by

A. Oxytocin

B. Vasopressin

C. FSH

D. LH

Answer: B



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7. Functions of oxytocin is/are

A. Smooth muscle contraction

B. Contraction of uterus

C. Milk ejection

D. All of the above

Answer: D

- **8.** MSH is secreted by
 - A. Anterior lobe of pituitary
 - B. Middle lobe of pituitary
 - C. posterior labe of pituitary
 - D. Endostyle

Answer: B



9. Mainly which type of hormones control the menstrual cycle in human beings

A. FSH

B. LH

C. FSH,LH,estrogen

D. Progesterone

Answer: C



10. Which set is similar?

A. Corpus luteum-Graafian follicles

B. Sebum -sweat

C. Bundle of His-pace maker

D. Vitamin B_7 -Niacin

Answer: A



11. Sertoli cells are regulated by the pituitary hormone known as –

A. LH

B. FSH

C. GH

D. Prolactin

Answer: B



12. Match the following and choose correct one

Column-I	Column-II
A) Hypothalamus	Lactation after child birth
B)Anterior	2) Resbsorption of water
pituitary	by nephrons
C)ADH	3) FSH and LH
D)Prolactin	4) Gonadotropin.
	releasing hormone

- A. A-2,B-4.C-3,D-1
- B. A-1,B-3,C-2,D-4
- C. A-4,B-3,C-2,D-1
- D. A-2,B-3,C-1,D-4

Answer: C



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

A. ACTH

B. Cortisol

C. Oxytocin

D. Somatostatin

Answer: D



14. In females, vigorous contraction of uterus at the time of child birth and milk ejection from the mammary gland is due to

A. LH

B. FSH

C. Oxytocin

D. Progesterone

Answer: C



A. a=oxytocin $\,\,
ightarrow\,$ C=portal circulation

 $b=ADH \Rightarrow d=direct release$

B. $a=ADH \Rightarrow C=axonal transport$

b=TSHRF `implies~d=portal circulation

C. a=ACTH \Rightarrow =axonal transport

 $b=MSH \Rightarrow c=portal circulation$

D. a=TSHRF \Rightarrow c=axonal transport

b=ADH \Rightarrow d=portal circulation

Answer: B



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16. A person suffers from frequent urination feels thirsty and there is no glucose in the urine ,what may be the cause

- A. Hyposecrection of posterior lobe of pituitary
- B. Hypersecrection of posterior lobe of pituitary
- C. Hyposecretion of adrenal gland
- D. Hyper secrection of thyroid

Answer: A



- **17.** Statement -I prolactin has no role in males statement-II prolactin is a maternity hormone
 - A. Statement-I and statement -II both are correct
 - B. Statement -I is correct and statement -is wrong
 - C. Statement -I is wrong and statement -II is correct
 - D. Both statement -I and statement -II are

wrong

Answer: C



- **18.** Which of the following is an accumulation and release centre of neurohormones ?
 - A. Anterior pituitary lobe
 - B. Posterior pituitary lobe
 - C. Intermediate lobe of the pituitary
 - D. Hypothalamus

Answer: B



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- 19. The hormones acting on mammary glands
 - A. FSH and LH
 - B. Oxytocin and prolactin
 - C. LH, Prolactin and oxytocin
 - D. Vasopressin and prolactin

Answer: B



20. Gigantism in children occurs due to the hyper secretion of

A. hGH

B. ACTH

C. LTH

D. ICSH

Answer: A



21. Secrection of which of the following antagonistic hormones is not under the control of pituitary gland?

A. PTH-Calcutonin

B. Calcitonin-Calcitriol

C. Glucocorticoids-cortisol

D. LH-FSH

Answer: B



22. Identify the following hormonal disorders A and B based on the their characters

A	В
* Due to hypersecretion of GH from an early age.	* Due to hypersecretion of GH after adolescence.
* Characterized by abnormally elongated long bones.	*Disproportionate facial features, gorilla like appearance.

- A. A-Acromegaly ,B-Gigantism
- B. A-Critinism, B-Acromegaly
- C. A-Gigantism, B-Midget

D. A-Gigantism, B-Acromegaly

Answer: D



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23. Diabetes insipidus is caused by the deficiency of hormone

A. Glucagon

B. Insulin

C. ADH

D. Secretin

Answer: C



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24. Hypersecretion of hGH during adulthood causes

A. Dwarfism

B. Osteoporosis

C. Acromegaly

D. Addison's disease

Answer: C



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25. Disproportionate gigantism is termed

A. Acromegaly

B. Cretinism

C. Dwarfism

D. Myxoedema

Answer: A



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- **26.** Occurrence of diuresis following saline water ingestion is due to
 - A. Suppression of adrenocoricoid release
 - B. reduction in the rate of water absorption

by kidnet capillaries

C. Suppression of ADH release

D. Reduction of colloidal osmotic pressure of blood

Answer: C



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27. Pigmentation of skin is influenced by

A. FSH

B. LH

C. MSH

D. ACTH

Answer: C



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28. Corpus luteum is maintained by

A. LH

B. GH

C. ACTH

D. Oxytocin

Answer: A



29. Fill up the blanks spaces in the table below by selecting correct option

Hormone	Produced by	Stimulate	Result		
A	Anterior pituitary	Sertoli cells	Spermio- genesis		
GnRH	В	Anterior pituitary	Secretion of gonado- tropins		
Oxytocin	Maternal pituitary	C	Parturition .		
Relaxin	Placenta	Pelvic ligaments	D		

A. A-FSH,B-Hypothalamus,C-Uterine

muscles,D-Easy delivery

B. A-LH,B-Hypothalamus,C-Uterus,D-

Mammary glands

C. A-Testosterone,B-Anterior pituitary,C-

Mammary glands, D-milk ejection

D. A-Inhibin,B-Anterior pitutary ,C-Ovaries,D-prevents ovulation.

Answer: A



30. 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 smooth muscles

B. increase merabolic rate

C. release glucose into the blood

D. Stimulate ovary

Answer: A

31. Corpus luteum is maintained by

A. Luteizing hormone & lactogenic hormone

B. Luteotropic hormone & FSH

C. ICSH & progsterone

D. ICSH & progesterone

Answer: A



32. Pituitary gland is divided into

- A. Adenohypophysis and neurohypophysis
- B. adenohypophysis and pars distalis
- C. adenohypophysis and pars intermedia
- D. adenohypophysis and anterior pituitary

Answer: A



33. Gigantism and dwarfism are the disease related to

- A. Prolactin hormone of mammary gland
- B. growth hormone of adenohypophysis
- C. luteinising hormone of pituitary gland
- D. thyroid stimulating hormone of thyroid

Answer: B



Exercise I Pineal Gland

- 1. The function of pineal body is to
 - A. lighten the skin colour
 - B. control sexual behavior
 - C. regulate periods of puberty
 - D. all of the above

Answer: D



2. Diurnal	rhythm	of our	body is	maintained	by
-------------------	--------	--------	---------	------------	----

- A. thyroid gland
- B. pineal gland
- C. pituitary gland
- D. Hypothalamus

Answer: B



3. Melanocyte stimulating hormone is secreted by

A. Pars intermedia

B. pars nervosa

C. pars distalis

D. thymus

Answer: A



4	Pigmentation	of skin	ic	maintained	hy
4.	riginentation	OI SKIII	15	mamilameu	υy

A. GH

B. ADH

C. MSH

D. thyroxin

Answer: C



5. Sleep -wake cycle,menstrual cycle are influenced by

A. thyroxine

B. calcutonin

C. FSH

D. melatonin

Answer: D



6. A hormone responsible for normal sleep wake cycle is

A. Epinephrine

B. Gastrin

C. Melatonin

D. Insulin

Answer: C



Exercise I Thyroid Gland

1. Basal	Metabolic	Rate is	influenced	by
----------	-----------	---------	------------	----

- A. GH
- B. Glucagon
- C. thyroxine
- D. ADH

Answer: C



2.	The	thy	roid	gland	is	com	posed	of
		,		0				

A. follicles

B. stromal tissue

C. trachea

D. Both (1) and (2)

Answer: D



3. a growing baby is characterized by stunted growth, mental retardation, low intelligence quotient, abnormal skin, deaf-mutism etc. it is caused due to

A. hyperthyroidism

B. goitre

C. hypothyroidism

D. Both (2) and (3)

Answer: C



4. Hypothyroidism during pregnancy causes

A. cretinism

B. low IQ

C. deaf-mutism

D. all of these

Answer: D



5. Thymosin is responsible for

A. raising blood sugar level

B. raising blood calcium level

C. maturation of T-lymphocytes

D. decrease in RBC

Answer: C



6. Oedema behind the eyes caused by hyperthyroidism is termed

- A. Myxoedema
- B. Simple goiter
- C. Exophthalmos
- D. Acromegaly

Answer: C



7. Select the incorrect option

A. Thyroid gland is the largest endocrine gland in humans

B. Thyroid secrets T_3 and T_4

C. Thyroid gland is composed of follicle and stromal tissues

D. Thyroid consists of four lobes

Answer: D



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

- A. Cretinism
- B. Goitre
- C. Myxoedema
- D. Exophthalmosis

Answer: D



9. Which of the following diseases is not related to thyroid gland?

A. Myxoedema

B. Acromegaly

C. Cretinism

D. Goitre

Answer: B



10. Match the following and choose the correct

answer

List-II

A) Cretinism

I) Hypothyroidism in adults

B) Myxoedema

II) Hypothyroidism in children

C) Gigantism

III) Hyper secretion of insulin

D) Acromegaly

IV) Hyper secretion of hGH in children

V) Hyper secretion of hGH in adults

A. A-II,B-I,C_-III,D-IV

B. A-II,B-I,C-IV,D-V

C. A-IV,B-III,C-V,D-II

D. A-II,B-I,C-IV,D-III

Answer: B



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- 11. Endemic goitre is a state of
 - A. Increased thyroid function
 - B. normal thyroid function
 - C. decreased thyroid funtion
 - D. Moderate thyroid function

Answer: C



12. Hashimoto disease is an autoimmune disorder that effects

A. brain

B. adrenal cortex

C. Thyroid gland

D. adrenal medulla

Answer: C



13. Hypothyroidism in adult human beings causes

A. Cretinism

B. Exopthalmos

C. Dwarfism

D. Myxoedema

Answer: D



14. Undersecretion of thyroxine/hypothyroidism in children causes

- A. Cretinism
- B. Graves's disease
- C. Myxoedema
- D. Endemic goiter

Answer: A



15. Enlargement of thyroid due to deficiency of iodine is called

- A. Tentany
- B. Oedema
- C. Acromegaly
- D. Simple goiter

Answer: D



16. T_3 and T_4 hormones are synthesised by

A. follicles

B. stromal tissue

C. isthmus

D. Both (1) and (3)

Answer: A



- A. Graves's disease
- B. Addison's disease
- C. Myxoedema
- D. Acromegaly

Answer: A



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18. Which one of the followings is not a function of T_4

- A. Erythropoiesis
- B. Maintainance of water and electrolyte balance
- C. Enhances oxygen consumption
- D. Stimulates cell division in epiphyseal plates of bone

Answer: D



19. Tetany is caused by

A. Hyperparathyroidism

B. Hypoparathyroidism

C. Hyperthyroidism

D. Hypothyroidism

Answer: B



- A. Excess of STH
- B. Excess of thyroxine
- C. Deficiency of thyroxine
- D. Excess of adrenaline

Answer: A



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Exercise I Parathyroid Gland

1. PTH is a

- A. hypercalcemic hormone
- B. hypocalcemic hormone
- C. endocalcemic hormone
- D. exocalcemic hormone

Answer: A



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2. Significant role of calcium balance in the body is maintained by

A. PTH and FSH

B. PTH and TCT

C. TCT and FSH

D. TCT and GH

Answer: B



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3. PTH is a

A. Hyperglucemic hormone

- B. hypoglycemic hromone
- C. Hypocalcemic hormone
- D. Hypercalcemic hormone

Answer: D



- 4. Gull's disease occurs due to
 - A. hyperthyroidism
 - B. hypothyroidism

- C. hyperparathyroidism
- D. hypoparathroidism

Answer: B



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5. Which of the following hormones is correctly matched with its deficiency disease ?

- A. Relaxin-cretinism
- B. Parathaormone-tetany

- C. Insulin-diabetes insipidus
- D. Prolactin-astigmatism

Answer: B



- **6.** Which of the following is a true nut?
 - A. Glucagon
 - B. growth hormone
 - C. Parathyroid hormone

D. Thyroxine

Answer: C



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7. Osteroporosis,osteomalacia,kidney stone formation are due to

A. Hyper parathyroidism

B. Hyperthyroidism

C. Hyper insulinimia

D. Hypothyroidism

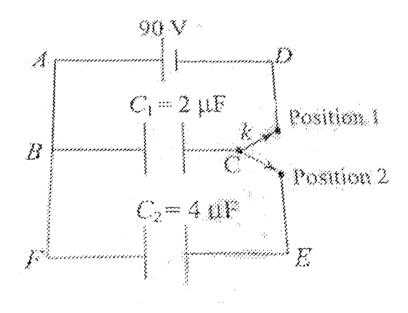
Answer: A



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8. Figure shows two capacitors of capacitance $2\mu F$ and $4\mu F$ and a cell of 90 V. The switch 'k' is such that when it is in position 1, the circuit ABCD is closed and when it is in position 2, the circuit BCEF is closed.the resistance of both the circuits is negligible os that the capacitor gets fully charged instantly. Initially the switch is in

position1. then it is turned in position 2 and then in position 1. Now two cycles are completed. Find the charge $(in\mu C)$ after two cycles.



A. Growth hormone

B. TSH

C. ACTH

D. None of these

Answer: A



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9. Due to hypersecretion of which hormone,bones becomes weak in female?

A. PTh

B. TSH

- C. Progesterone
- D. Estrogen

Answer: A



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10. Match the following and choose the correct combination.

List-1 List-2

- A) Hypothyroidism 1)Addison's disease
- B) Hyperthyroidism 2) Kidney stones
- C) Hypoparathyroidism 3) Graves's disease
- D) Hyperparathyroidism 4) Tetany
 - Myxoedema

- A. A-5,B-3,C-4,D-2
- B. A-4,B-3,C-2,D-5
- C. A-5,B-3,C-2,D-4
- D. A-3,B-5,C-4,D-2

Answer: A



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Exercise I Thymus Gland

1. Thymus gland releases

A. T_4

B. T_3

C. Thymosins

D. TCT

Answer: C



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2. If thymectomy is done during adult hood then what possibility is their

B. Die immediately C. No adverse reaction D. Myasthenia gravis **Answer: C Watch Video Solution** 3. Major roles of thymus gland in humans is/are A. Differentiation of T-lymphocytes

A. Immunosuppressant

- B. Differentiation of B-lymphocytes
- C. Promote production of antibodies
- D. Both (1) and (3)

Answer: D



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4. Immune response of old age person becomes weak due to the degeneratio of following gland

A. Thyroid

- B. Parathyroid
- C. thymus
- D. hypothalamus

Answer: C



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5. This one plays an important role in immune system

A. Pineal gland

B. thyroid

C. parathyroid

D. Thymus gland

Answer: D



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6. Thymosin plays an important role in differentiation of

A. RBCs

B. T-lymphocytes

C. NK cells

D. Dendritic cells

Answer: B



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7. "Tyrosin" is important in the formation of

I. T_3 II. T_4 III.Oxytocin IV.PRL

I and II

II and III

IV and I III and I A. I and II B. II and III C. IV and I D. III and I **Answer: A**

8. A child with a weak immune system .Which of the following gland could be the cause of the problem?

A. Thyroid gland

B. Parathyroid gland

C. Thymus

D. Pituitary gland

Answer: C



9. Estrogen

- A. Stimulates the growth of ovarian follicle
- B. Stimulate the appearance of secondary sex characters
- C. Stimulate the growth of mammary gland
- D. All of the above

Answer: D



- **10.** Thymosin is responsible for
 - A. Raising the blood sugar level
 - B. Raising the blood calcium level
 - C. Differentiation of T lymphocytes
 - D. Decrease in blood RBC

Answer: C



11. Blood calcium level is a resultant of how much dietary calcium is absorbed ,Hoe much calcium is lost in urine,how much bone dissoves releasing calcium into the blood and how much calcium from blood enters tissues.A number of facctors play an important role in these processes.Mask the one which has no role.

- A. Vitamin D
- B. Parathyroid hormone
- C. Thyrocalcitonin
- D. Thymosin

Answer: D



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Exercise I Adrenal Gland

1. During emergency piloerection ,sweating ,dilation of pupil are due to

thyroxine, insulin

insulin,glucagon

catecholamines

corticoids

B. insulin,glucagon			
C. catecholamines			
D. corticoids			
Answer: C			
Watch Video Solution			
2. Adrenaline and noradrenaline do not pomote			
A. Breakdown of proteins			

A. thyroxine,insulin

- B. Breakdown of lipids
- C. Glycogenesis
- D. Glycogenolysis

Answer: C



- 3. Main glucocorticoid is
 - A. Insulin
 - B. Gluscagon

- C. Cortisol
- D. Aldosterone

Answer: C



- 4. Aldosterone is the main
 - A. Sexual cortioid
 - B. glucocorticoid
 - C. mineralocorticoid

D. androgen

Answer: C



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5. Hormone that helps in maintenace of electrolytes.Body fluid volume and osmotic pressure is

Cortisol

aldosterone

Oxytocin

thyroxin

- A. Cortisol
- B. aldosterone
- C. Oxytocin
- D. thyroxin

Answer: B



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6. A tumour in the adrenal zona glomerulosa can cause hyper secrection of hormones producted in that region. Which of the

following might you expect to find in a patient with such a tumour: Increased blood sodium levels Increased blood glucose levels Decreased blood calcium levels Increased dehydration A. Increased blood sodium levels B. Increased blood glucose levels C. Decreased blood calcium levels D. Increased dehydration

Answer: A

- 7. Fight (or) Flight responses are due to
 - A. Release of adrenal medullary hormones and low sympathetic tone
 - B. Release of corticoids and low sympathetic tone
 - C. Release of adrenal medullary hormones and high sympathetic tone

D. release of adrenal medullary hormoned and high parasympathetic tone

Answer: C



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8. Autoimmune endocrine disorder are

A. Exophthalmos & simple goiter

B. Grave's disease & Addision's disease

C. Addison's syndrome & cushings syndrone

D. Graves disease & tentany

Answer: B



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9. Statement-I Adrenalin functions differently in different organs like heart and liver statement-II: Adrenalin receptors differ in different organs

A. Statement-I and statement-II both are correct

B. Statement-I is correct and statement -is wrong

C. Statement-I is wrong and statement -II is correct

D. Statement-I and statement -II Both are wrong

Answer: B



- **10.** Statement-II:Hormonal action is characterized by amplification of out put statement-II:Hormones are bio-catalysis
 - A. Statement-I and statement-II both are correct
 - B. Statement -I is correct and statement -II is worng
 - C. Statement-I Is wrong and statement-II is correct

D. Both statement -I and statement -II and

wrong

Answer: B



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11. Insulin shock is due to

A. Down-regulation of insulin-receptors

B. Up-regulation of insulin receptors

C. injuction of heavy dose of insulin

D. Low blood sugar level

Answer: C



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12. Addison's disease is due to the

A. Hyposecrection of T_3 and T_4 Hormones

B. Hyposecretion of glucocorticoids and mineralocoticoids

C. Hyperesection of T_3 and T_4 hormones

D. Hypersecretion of glucocorticoids and mineralocorticoids

Answer: B



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13. Identify the wrong statement.

A. Hyposecretion of corticosteroids causes cushing's disease

- B. Hypersecretion of thyroxine in adults causes Grave's disease
- C. Hyposecretion of adrenal medullary hormones causes addison's disease
- D. Simple goilter is an endemic disease

Answer: C



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14. Corticoids are the hormones,which are secreted by

A. Renal cortex B. Adernal cortex C. Adrenal medulla D. hypothalamus **Answer: B**

- **15.** Glucocorticoids are the corticoids which
 - A. are involved in protein metabolism

- B. are involved in fat metabolsim
- C. are involved in glucose metabolism
- D. All of the above

Answer: D



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16. Addison's disesase is due to

A. Hypersecretion of PTH and aldosterone

B. Hyposecretion of cortisol and aldosterone

C. Hypersecrection of PTH and

Hypersecretion of cortisol

D. Hypersecretion of cortisol and PTH

Answer: B



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17. Addison's disesase is due to

- A. hypertrophy of adrenal cortex
- B. Hyperophy of thyroid
- C. Atrophy of adrenal coretx
- D. Atrophy of thyroid

Answer: C



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18. Adrenaline and noradrenaline are hormones that can act as

- A. Energy producing agents
- B. Neurotransmitter
- C. Energy yielding agents
- D. Biocatayst

Answer: B



Watch Video Solution

19. Hypersecrection of Cortisol by adrenal cortex causes

- A. Cushing's syndrome
- B. Turner's syndrome
- C. Down's syndrome
- D. Klinefelter syndrome

Answer: A



20. Match the following and choose correct one

Column-I	Column-II
A)Addison's disease	e 1)Pituitary
B)Tetany	2) Thyroid
C) Acromegaly	3) Adrenal cortex
D)Myxoedema	4) Parathyroid

A. A-3,B-2,C-1,D-4

B. A-1,B-3,C-2,D-4

C. A-3,B-4,C-1,D-2

D. A-3,B-4,C-2,D-1

Answer: C



21. Statement-I (S-I):hyposecrection of alsosterone results in low blood pressure.

Statement -II (S-II):hyposecretion of Aldosterone leads to elevated potassium (K+),decreased sodium (Na+) in the blood and dehydration

A. Statement-I and statement -II both are correct

B. Statement-I is wrong Statement -II is correct

C. Statement -I is correct and statement-is wrong

D. Both statement-I and statement-II are wrong

Answer: A



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22. Epinephrine is secreted from

A. Adrenal medulla and increases the heart rate

B. adrenal medulla and decreases the heart rate

C. adrental cortex and increases the heart rate

D. adrental cortex and decreases the heart rate

Answer: A



23. Gluconeogenesis, Lipolysis and proteolysis process are stimulated by

A. Glucocoticoids

B. Mineralocorticoids

C. Both (1) and (2)

D. None of the above

Answer: A



24. Match the following about endoerine disorder and choose the correct combination

S	ymptom	Disorder
A) ŀ	lypersecretion	1)Flushed facial skin
o	of cortisol	
B) C	Cushing's Syndrome	2)Skin with bronzed
		appearance
C) N	1yxoedema	3)Stretch marks on
		abdomen
D) A	Addison's disease	4)Pale skin
		5)Swelling of facial
		tissue

- A. A-3,B-2,C-5,D-1
- B. A-2,B-1,C-4,D-3
- C. A-3,B-5,C-1,D-2
- D. A-1,B-3,C-5,D-2

Answer: D



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25. Match the following and select the correct option

List-I

l) Melatonin

A) Fight-or-Flight response

II) Adrenalin

B) Milk ejection

C) Sets Biological clock

IV) Oxytocin

D) Anti inflammatory effect

A. IC, IIA, IIIB, IVD

B. IC,IIA,IIID,IVB

- C. IB,IIA,IIID,IVC
- D. I C,IID,IIIA,IV B

Answer: B



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26. Addison's disease results from

- A. hypertrophy of gonad
- B. hyperactivity of Leydig,s cells
- C. hyposecretion of adrenal cortex

D. None of the above

Answer: C



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

A. insulin

B. melatonin

C. aldosterone

D. testosterone

Answer: C



Watch Video Solution

28. Which hormon cause dilation of blood vessels,increased oxygen consumption and gluco-genesis?

A. Glucogon

B. ACTH

- C. Insulin
- D. Adrenaline

Answer: D



Watch Video Solution

29. A steroid hormone which regulates glucose metabolism is

- A. Cortisone
- **B.** Cortisol

- C. Corticosterone
- D. 11-Deoxyxorticosterone

Answer: B



Watch Video Solution

30. Which one of the following does not act as a neurotransmitter?

- A. Acetylchline
- B. Epinephrine

- C. Norepinephrine
- D. Cortisone

Answer: D



Watch Video Solution

31. When blood levels of glucocorticoids raises then the secretion of

- A. TSH decreases
- B. Somatocrinin increases

- C. FSH Increases
- D. ACTH decreases

Answer: D



Watch Video Solution

32. Adrenaline directly affects

- A. S.A node
- B. lpha-cells of Langerhans
- C. Dorsal root of spinal nerve

D. Epithelial cells of stomach

Answer: A



Watch Video Solution

33. Statement-I:Adrenal medulla is not essential for life

Statement-II :Nor epinephrine is also secreated by neurons of sympathetic divison

A. Statement-I and statement-II both are correct

B. Statement-I is correct and statement-II is wrong

C. Statement -I is wrong and statement-II is correct

D. Both statement-I and statement-II are wrong

Answer: A



34. Mary is about to face an interview. But during the first five minutes before the interview she experiences sweating, increased rate of heart beat, respiration etc. Which hormone is responsible for her restlessness

- A. Estrogen and Progesterone
- B. Oxytocin and vasopressin
- C. Adrenaline and noradrenaline
- D. Insulin and glucagon

Answer: C

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

A. Insulin like growth factor (IGF)

B. Melatonin

C. Testosterone

D. Aldosterone

Answer: D



36. Cortisol is secreted from

- A. Pancreas
- B. Thyroid
- C. Adrenal
- D. Thymus

Answer: C



Exercise I Pancreas

- 1. Hyperglycemia is due to
 - A. 1)Hypersecretion of glucocorticoids and hyposecretion of insulin
 - B. 2)Hypersecretion of glucocorticoids and hyposecretion of glucagon
 - C. 3)Hyposecretion of glucagon and hypersecretion of Insulin

D. 4)Hypersecrection of glucocorticoids and insulin

Answer: A



- **2.** Following are events taking place for blood glucose regulation -
- (i) increase in blood glucose
- (ii) increase in circulating from glucagon
- (iii) release of glucose from glycogen

(iv) decrease in blood glucose level

Select the option depicting the correct sequence of these events.

- A. ,iii,ii,i
- B. iii,I,ii
- C. ,ii,iii,i
- D. I,ii,iii

Answer: B



- A. Cortisol
- B. Adrenaline
- C. Insulin
- D. Glucagon

Answer: D



4. Rapid movement of glucose into hepatocytes and adipocytes is due to

A. Cortisol

B. Adrenaline

C. Insulin

D. Glucagon

Answer: C



5. Diabetes mellitus is characterized by

A. Loss of appetite

B. Loss of growth

C. increase of glucose

D. All of those

Answer: C



6. Which one of the following pairs correctly matches a hormone with a disease resulting from its deficiency?

A. 1)Lutenizing hormone-Failure of ovulation

B. 2)Insulin-Diabetes insipidus

C. 3)Thyroxine-Tetany

D. 4)Parathyroid hormone-Diabetes mellitus

Answer: A



7. Which one of the following pairs correctly matches a hormone with disease resulting from its deficiency?

A. Relaxin-Gigantism

B. Prolactin-Cretinism

C. Parathyroid hormone-Tetany

D. Insulin-Diabetes insipidus

Answer: C



ol i iiia ciic oaa oiic oa	8.	Find	the	odd	one	out
---------------------------------------	----	------	-----	-----	-----	-----

- A. Parathyroid-Tetany
- B. Pancreas-Diabetes insipidus
- C. Adrenal cortex-cushing's syndrome
- D. thyroid -goitre

Answer: B



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9. Enterogastrone is:

- A. A hormone secreted by gastric mucosa
- B. Enzyme secrected by gastric mucosa
- C. A hormone secreted by duodenal mucosa
- D. Secreted by exocrine gland related to digestions

Answer: C



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10. How insulin lowers blood sugar?

- A. By increasing myoglobin formation
- B. By increasing blood pressure
- C. By enhancing liver glycogen formation
- D. All of these

Answer: C



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11. Fill up the blanks A to D with correct combination of term.Insulin is a-A-

Hormone, which plays a major role in the

regulation of -B-homeostasis major acts mainly on -C- and -D-

A. A -protein,B-glucose,C-hepatocytes,D-adipocytes

B. A-peptide,B-lipd,C-hepatocycytes,D-myocytes

C. A-protein,B-glucose,C-osteocytes,D-adipocytes

D. A-peptide,B-glucose,C-hepatocytes,D-adipocytes

Answer: A



12. Statement-I:Pancrease is a mixed gland statement-II ,pancreatic enzymes help in digestion

A. 1)Statement-I and statement -II both are correct

B. 2)Statement-I is correct and statement-II is wrong

C. 3)Statement-I is wrong and statement -II is correct

D. 4)Both statement-I and statement-II are wrong

Answer: A



13. 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 catabolised to from glucose
- B. Amino acides are catabolised in liver
- C. Amino acids are discharged into blood stream fro liver
- D. Glycogen from muscles are released into the blood stream

Answer: A



14.)Ilow metabolic rate

II)Increase in body weight

III)Tendency to retain water in tissue

Which of the following disease shows the above given symptoms?

A. Gigantism

B. Cretenism

C. Myxoedema

D. Acromegaly

Answer: C

15. Islets of Langerhans in a normal human pancreas comprise only

A. 2-3% of pancreatic tissue

B. 1-2% of pancreatic tissue

C. 2-4% of pancreatic tisssue

D. 4-5 % of pancreatic tissue

Answer: B



16. Glucagon is

- A. Protein hormone
- B. Increases the blood sugar
- C. Hyperglycmic hormone
- D. All of the above

Answer: D



17. Insulin is

- A. Protein hormone
- B. Decreases the blood sugar
- C. act on adipose tissue and hepatocytes
- D. All of the above

Answer: D



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18. Match correctly

- A. 1)Thyroxine-tetanus
- B. 2)insulin-diabetes insipidus
- C. 3)adrenaline-hepatitis
- D. 4)MSH-metachrosis

Answer: D



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19. Statement-I:pancreas is considered a dual (mixed) gland.

Statement-II :Pancreas produces enzymes and hormones.

A. 1)Both S-I and S-II are correct

B. 2)S-I is incorrect S-II is correct

C. 3)Both S-I and S-II are incorrect

D. 4)S-I is correct S-II is correct

Answer: A



20. Loss of glucose in the urine occurs only when the blood glucose concentration is above

- A. 180 mg/100 ml
- B. 100mg/100 ml
- C. 80 mg/100ml
- D. 30 mg/100 ml

Answer: A



21. Diabetes mellitus causes

- A. Hypocalcaemia
- B. Hypocalcaemia
- C. Hypoglycemia
- D. Hyperglycaemia

Answer: D



22. How many Islets of Langerhans are present in normal human pancreas?

- A. 1 to 2 million
- B. 2 to 3 million
- C. 3 to 4 million
- D. 4 to 5 million

Answer: A



23. Hypoglycemia is associated with

- A. Hyperinsulinism
- B. hypothyroidism
- C. Cushing's disease
- D. Diabetes insipidus

Answer: A



1. Development of epididymis,vas deferens,seminal vesicles,prostate glands and urethra is controlled by

- A. estogen
- B. Progesterone
- C. androgen
- D. Pituitary hormone

Answer: C



- A. Libido
- B. Catabloism of proteins
- C. Spermatogenesis
- D. Anabolism of proteins

Answer: B



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3. Androgens regulates

- A. Development of accessory sex organs
- B. Muscular growth
- C. Maturation of accessory sex organs
- D. All of the above

Answer: D



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4. Statement-I:Andogens are secreted only in males

Statement-II :Progesterone is secreted only in females

A. Statement-I and statement -II both are correct

B. Statement-I is correct and statement is wrong

C. Statement -I is wrong and statement-II is

correct

D. Statement-I and statement -II Both are

wrong

Answer: C



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5. The Leydig cells secrete

A. Intermedian

B. Inhibin

C. Testosterone

D. Fertilizin

Answer: C

6. Choose the correct option among the following

Column-A		Column-B
A)Epinephrine	I)	Stimulates in
		muscle growth
B) Testosterone	II)	Decrease in blood
		pressure
C) Glucagon	III)	Decrease in liver
		glycogen content
D) Atrial natriuretic	IV)	Increase heart
factor		beat

A. A-II,B-I,C-II,D-IV

B. A-IV,B-I,C-III,D-II

C. A-I,B-II,C-III,D-IV

D. S-I,B-IV,C-II,D-III

Answer: B



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Exercise I Ovary

1. Match the following and choose correct one.

Column-I	Column-II
A) Testis	1) Pigmentation
B) Ovaries	2) Circadian rhythm
C) Pineal body	3) Estrogen
D) Melanin	4) Testosterone

- A. A-2,B-4,C-3,D-1
- B. A-1,B-3,C-2,D-4
- C. A-4,B-3,C-2,D-1
- D. A-2,B-3,C-1,D-4

Answer: C



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2. Leydig cells produce a group of hormones called

B. Estogens C. aldosterone D. Gondotropins **Answer: A Watch Video Solution** 3. The progesterone Is a hormone .which is A. a protein useful for morphogenesis

A. Androgens

- B. helpful in relaxing uterus during parturition
- C. an enzyme helpful for growth
- D. Responsible for growth and maintenance of deciduas

Answer: D



4. The female hormone inhibin is secreted by

B. 2)Ovary C. 3)Corpus luteum D. 4)Uterine epithelium **Answer: C Watch Video Solution 5.** Progesterone is secreted by the cells of A. Corpus luteum

A. 1)Zona pellucida

- B. Corpus callosum
- C. Corpus albicans
- D. Macula lutea

Answer: A



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6. Fill up the blanks A to C with correct combination of terms,Estrogens produce wide ranging actions such as stimulation of growth and activities of -A- secondary sex

organs, development of growing -B-, appearance of female secondary sex characters (e.g., high pitch of voice, etc), -C- gland development.

- A. A-female, B-ovarian follicles, C-mammary
- B. A-male, B-ovarian follicles, C-mammary
- C. A-female,B-thyroid follicles,C-mammary
- D. A-female ,B-ovarian follicles,C-uterine

Answer: A



7. Which	one o	f the	following	is	anti	aborti	ion
hormone	?						

- A. Relaxin
- B. Progesterone
- C. Estrogen
- D. epinephrine

Answer: B



8. Progesterone

- A. Supports the pregnancy
- B. Acts on the mammary gland and stimulate the formation of alveoli
- C. Both (1) and (2)
- D. Controls secondary sexual characters in females

Answer: C



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

A. Pineal (i) EpinephrineB. 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

Answer: D



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Exercise I Hormones Produced By Other Organs

- 1. Gastrointestinal hormone are
 - A. Steroidal in nature
 - B. Proteinaceous in nature
 - C. Glycoproteinaceous in nature
 - D. Both (1) and (2)

Answer: B



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- 2. Corpus luteum secretes a hormone called
 - A. Prolactin
 - B. Progesterone
 - C. Aldosterone
 - D. testosterone

Answer: B

3. Which of the following organs in mammals does not consist of central "medullary' region surrounded by a cortical region

A. Ovary

B. Adrenal

C. Liver

D. Kidney

Answer: C

4. GIP (Gastric inhibitory peptide)

A. Inhibits the gastric secretion and motility

B. Inhibits the gastric secretion only

C. Activates the gastric secretion and motility

D. Activates the gastric secretion only

Answer: A



5. ANF has exactly opposite function of which of hormone secreted .

A. PTH

B. Estogen

C. aldosterone

D. androgen

Answer: C



6. JG cells kidney produces

- A. Rennin
- B. Renin
- C. erythropoitin
- D. Both (2) and (3)

Answer: D



7. Match the following and choose correct one.

Column-I	Column-II
A) Testosterone	 Increase in muscle growth
B) Atrial	2) Decrease in
natriuretic factor	blood pressure
C) Glucagon	 Decrease in liver glycogen content
D) Epinephrine	4) Increase in heart beat

Answer: A

8. Statement-I :Erythropoietin is produced from the JG cells of kidney in response to high blood volume

Statement II:Erythropoietin stiulates erythroclasia.

A. 1)Both statement I & statement II are wrong

B. 2)Statement I is true & statement II is

wrong

C. 3)Both statement I & statement II are correct

D. 4)Statement I is wrong & statement II is correct

Answer: A



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9. ANF, Is secrets by

A. Venous wall of heart

- B. atrial wall of heart
- C. Both (1) and (2)
- D. None of these

Answer: B



- **10.** ANF' is
 - A. Steroidal in nature
 - B. Peptide hormone

- C. Glucocorticoid hormone
- D. Mineralocorticold hormone

Answer: B



- 11. ANF' is a hormone, Which
 - A. is secreted when BP is increased
 - B. decreases BP
 - C. Causes vasodilation

D. All of above

Answer: D



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12. Erythropoietin

- A. Stimulates erythoropoiesis
- B. Inhibits erythropoiesis
- C. Inhibits platelets formation
- D. Stimulates platelets formation

Answer: A



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13. CCK acts on

A. 1)Pancreas

B. 2)gall bladder

C. 3)Both (1) and (2)

D. 4)Liver

Answer: C

14. The given table enlistes various hormones and their chemical nature. Select the option which completes that able.

Hormone		Chemical composition				
(i)		Protein				
Testosteron	e	(ii)				
Thyroxine		(iii)				
(iv)		Amino-acid derivative				
(i)	(ii)	(iii) (iv)				
1) Cortisol	Steroid	Polypeptide Estradiol				
2) Insulin	Protein	Polypeptide Epinephrine				
3) Cortisol	Protein	lodothyronine Estradiol				
4) Insulin	Steroid	Iodothyronine Epinephrine				



15. The same hormone can be known by various names given in which set

- A. 1)secretin ,enterokinin,gastrin
- B. 2) Gametokinetic factor , testosterone, LTH
- C. 3)ADH, Pitressin, and vasopressin
- D. 4)Oxytocin ,tri-iodo=thyronine,thyroxine

Answer: C



16. Atrial natriuretic peptide is produced by

- A. lungs
- B. heart
- C. Kidney
- D. JG cells

Answer: B



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17. Secretin acts on the

- A. liver
- B. stomach
- C. pancreas
- D. small intestine

Answer: C



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18. Which of the following hormones is not secreted by human placenta?

- A. Prolactin
- B. Estrogen
- C. Progesterone
- D. Human chorinoic gonadotropin

Answer: A



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Exercise I Mechanism Of Hormonal Action

1.	Which	one	of	the	followi	ng	is	not	а	second
n	nesseng	er in	ho	rmo	ne actio	on ?				

- A. cAMP
- B. vGMP
- C. Calcium
- D. Sodium

Answer: D



2. Hormone receptors on the target tissue are made up of

A. lipids

B. carbohydrates

C. Proteins

D. All of these

Answer: C



3. Steroid hormones typically alters the activity of target cells by

A. activating primary messenger

B. activating secondary messenger

C. interacting with intracellular receptors

D. selectively affecting transcription from a

battery of genes

Answer: C



4. Lipid soluble hormone works by interacting with

A. Intracellular receptors

B. Intercellular receptors

C. Enzymes

D. producing enzymes

Answer: A



5. Statement-I Boy/girl who is blind by birth attains sexual maturity early

Statement-II:Darkness stimulate the release of melatonin

A. Statement-I and statement-II both are correct

B. Statement-I is correct and statement -is wrong

C. Statement-I is wrong and statement-II is correct

D. Both statement -I and statement-II are wrong

Answer: A



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6. Some hormones need the secondary messenger because

A. they need activator

B. They can't cross cell membrane

- C. They can cross cell membrane
- D. They need a prosthetic group

Answer: B



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7. Which one of the following is not a second messenger in hormone action ?

A. Calcium

B. Sodium

- C. cAMP
- D. IP_3

Answer: B



- 8. Estrogen and testosterone hormones bind to
 - A. cytoplasmic receptors
 - B. G-protein membrane proteins
 - C. Enzyme linked proteins

D. membrane receptors

Answer: A



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9. Steroid hormones work as

A. They enter into target cells and binds

with specific receptor and activate specific

genes to form protein

B. they bind to cell membrane

- C. they catalyse formation of AMP
- D. None of the above

Answer: A



- 10. Insulin receptors are
 - A. extrinsic protein
 - B. interinsic protein
 - C. G-protein

D. trimetic protein

Answer: A



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

A. Not respond to the hormone

- B. Continue to respind to the hormone without any difference
- C. Contuniue to respond to the hormone but in the opposite way
- D. Continue to respind to the hormone but will require higher concentration

Answer: A



12. Hormone that is having receptor on the surface of cell membrane is

- A. estrogen
- B. iodothyronines
- C. FSH
- D. testosterone

Answer: C



13. Hormone that maintains the blood glucose level within the limit is

- A. Thyroxine
- B. Insulin
- C. Testesterone
- D. Epinephrine

Answer: A



14. Secretion of aldosterone is under the control of

A. Hypothalamic portal system

B. Hypothalamo-hypophyseal tract

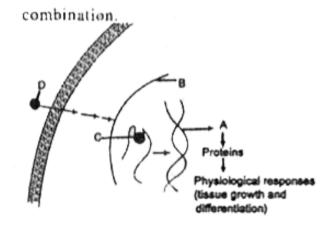
C. RAAS pathway

D. Adrenal cortex

Answer: C



15. Identify A to D and choose the correct combination



Chemical Coordination and Integration

A. A-DNA,B-Nucleus,C-Hormone receptor complex,D-Hormone

B. A-mRNA,B-Nucleus,C-Hormone receptor complex,D-Hormone

C. A-mRNA ,B-Nucleus ,C-Hormone receptor complex,D-Protein

D. A-DNA,B-Nucleus,C-Hormone receptor complex ,D-protein

Answer: B



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

- A. cyclic AMP
- B. Insulin
- $\mathsf{C}.\,T_3$
- D. Gastrin

Answer: A



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17. Hormones are called chemical signals that stimulate specific target tissues. Which is the

corret location of these receptors in case of protein hormones?

A. Extra cellular matrix

B. Blood

C. Plasma membrane

D. Nucleus

Answer: C



1. Which	one	of	the	following	hormones	İS	а
modified	amin	o a	cid ?	•			

- A. Prostaglandin
- B. Progesterone
- C. Epinephrine
- D. Estogen

Answer: C



- A. Huxley
- B. Thomas Addison
- C. Abel
- D. Kimball and Murlin

Answer: B



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3. Heterocrine glands are the glands .which

- A. Work as exocrine glands
- B. Work as endocrine glands
- C. Have dual (exo and endocrine) mode of function
- D. are present in the hypothalamus region of brain

Answer: C



- 4. Read the following statements
- I) All hormone receptors are proteins
- II)All hormones are protein hormones
- III)The hormone fucntion is generally close to

the site its release

The incorrect statements are

- A. All except I
- B. All except II
- C. All except III
- D. I ,II and III

Answer: A



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5. Local hormone of the following is

A. Somatostatin

B. ACTH

C. Thyrocalcitonin

D. Thyroxine

Answer: A

Exercise li Human Endocrine System

- **1.** Which of the following can be true regarding epinephrine
- A)Protein hormone B)Catecholamine
- C)Lipid soluble D)Water soluble
- E)Bind to intracellular hormone receptor
- F)Steroid hormone
- G)Amine hormone

- A. A,B,E,G
- B. B,D,E,G
- C. B,C,E,G
- D. B,D,G

Answer: D



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2. If suddenly the gravitational force of attraction between the earth and a satellite

revolving around it becomes zero, then the satellite will:

A. Rathke's pouch

B. Outgrowth of oral region

C. Intundibular process

D. Hypophyseal portal system

Answer: C



3. Match the following columns

List-I

A) V-shaped chromosome

B) L-shaped chromosome

C) J-shaped chromosome

D) I-shaped chromosome List-II

I) telocentric

II) metacentric

III) sub-metacentric

IV) acrocentric

A. A& B

B. B & D

C. C & D

D. E & F

Answer: B



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- 4. Suprachiasmatic nucleus is influenced by
 - A. increased light intensity
 - B. decreased light intensity
 - C. Both of the above
 - D. None of the Above

Answer: D

5. Estradiol is a

Glucocorticoid

Mineralo corticoid

Gonadotropin

Oestrogen

A. Glucocorticoid

B. Mineralo corticoid

C. Gonadotropin

D. Oestrogen

Answer: D



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- **6.** Read the following hormone
- A)Epinephrine B)Thyroid hormone
- C)Nor-epinephrine D)Melatonin

Identify the hormones that considered as

catecholamines

- A. A and B
- B. A and C

C. B and C

D. C and D

Answer: B



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7. Study the following and choose the correct statements

I)Hormones produced by adenohypohysis are

protein hormones

II)Hormones stores by neurohypophysis are

peptide hormones

III)Catecholamines are water soluble hormones

IV)Thyroid hormone is derived from aminoacid
the tyrosine

- A. A)I and II
- B. B)I,II and III and IV
- C. C)II,III and IV
- D. D)III and IV

Answer: B



8. Identify the mismatched combination from the follwing

- A. 1)Peptide hormone-vasopressin
- B. 2)Protein hormone-Insulin
- C. 3)Amine hormone-Melatonin
- D. 4)Oestrogen-Protein hormone

Answer: D



9.	Which	one	of	the	following	is	termed
tei	mporary	gland	1?				

- A. Pineal
- B. Thymus
- C. Placenta
- D. Kldney

Answer: C



Exercise Ii Hypothalamus

- 1. Function of hypothalamus
 - A. Thermoregulation
 - B. Water balance
 - C. Control of hormone function
 - D. All the above

Answer: B



- 2. Hypothalamus secrete
 - A. Peptide hormone only
 - B. Amine hormones only
 - C. Inhibiting and releasing hormones
 - D. Gonadotropins

Answer: C



•						•
1.	Pro	lactin	contro	Iling	agent	IS
					0	

- A. Ach
- B. Dopamine
- C. GABA
- D. Prostaglandins

Answer: B



2. A 10 yr child with deficient anterior pituitary function is likely to

A. Develop acromegaly

B. be a short stature but have relatively normal body

C. be a constant danger of becoming dehydrated

D. Have a high basal metabolic rate

Answer: B



3. The posterior pituitary is under the

A. 1)direct neural regulation of the adenohypophysis

B. 2)direct neural regulation of the hypothalamus

C. 3)direct axonal regulation of the adenohypophysis

D. 4)direct axonal regulation of the neurohypophysis

Answer: B



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4. In fish culture which pair of hormones is most important?

A. TSH and ACTH

B. FSH and LH

- C. Estrogen and progesterone
- D. Vasopressin and oxytocin

Answer: B



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5. If the pituitary gland of an adult rat is surgically removed, which of the following endocrine glands will be the least affected?

A. Adrenal cortex

- B. Adrenal medulla
- C. Thyroid
- D. Gonad

Answer: B



- 6. Congenital hypothyroidism results in
 - A. Myxoedema
 - B. Exopthalmos

- C. Dwarfism
- D. Cretinism

Answer: D



- 7. Hyposecrection of ADH causes
 - A. Type 1 diabetes mellitus
 - B. Diabetes insipidus
 - C. Type II diabetes mellitus

D. Hyperinsulinism

Answer: B



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8. Diabetes insipidus occurs due to the hyposecretion of

A. Thymosine

B. Oxytocine

C. Insulin

D. Vasopressin

Answer: D



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9. Secrection of which of the following is under neurosecretory nerve axons?

A. Pineal

B. Adrenal cortex

C. Anterior pituitary

D. posterior pituitary

Answer: D



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10. GnRH (Gonadotropin Releasing Hormone)Stimulates the

A. Pancreas to release the gonadotropin

B. Pituitary for synthesis and release of gonadotropin

C. Testis to release the gonadotropin

D. hypothalamus to release the gonadotropin

Answer: B



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11. The equilibrium constant at $25\,^{\circ}\,C$ for the process:

$$CO^{3\,+}(aq)+6NH_3(aq)\Leftrightarrow \left[Co(NH_3)_6
ight]^{3\,+}(aq)$$

is $2 imes 10^7$. Calculate the value of ΔG^Θ at $25^\circ C$

•

$$[R = 8.314JK^{-1}mol^{-1}]$$

In which direction is the reaction spontaneous when reactants and products are under standard conditions?

A. Adrenal cortex

B. Anterior pituitary

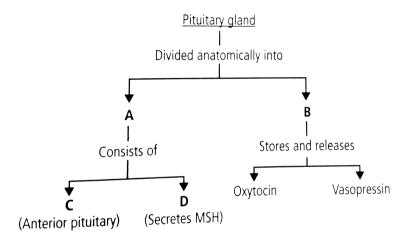
C. Posterior pituitary

D. Pineal body

Answer: C



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



A. A-neurohypophysis, B-Adenohypophysis, C-

pars distalis, D-pars intermedia

B. A-Adenohypophysis, B-Nurohypophysis, C-

Pars intermedia, D-Pars distalis

C. A-Adenohypophysis

,B-

Neurohypophysis,D-Pars distalis ,Pars

intermedia

D. A-Neurohpophysis,B-Afenohypophysis,C-

Pars intermedia, D-Pars distalis

Answer: C



Exercise Ii Pineal Gland

1. Which one is derived from the aminoacid tryptophan

A. Melanin

B. Melatonin

C. Insulin

D. Thyroxine

Answer: B



- 2. Darkness stimulates the release of the following hormone
 - A. A water soluble causing ageing in adults
 - B. A hormone that maintains menstrual cycle
 - C. A hormone that prevents diuresis
 - D. A hormone that stimulates uterine muscle contractions

Answer: B

3. Which of the following is responsible for sleep cycle movement?

A. Dopamine

B. Melatonin

C. Serotonin

D. Adrenalin

Answer: B



- **4.** Darkness stimulates the release of the following hormone
 - A. A water soluble causing ageing in adults
 - B. A hormone that maintains menstrual cycle
 - C. A hormone that prevents diuresis
 - D. A hormone that stimulates uterine muscle contractions

Answer: B



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Exercise Ii Thyroid Gland

1. A patient has swelling around eyes and large as well as popping eye balls. This patient is probably suffering from

A. excessive secretion of thyroxine

B. excessive secrection of calcitonin

- C. less secretion of thyroxine
- D. less secrection of calcitonin

Answer: A



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2. Toxic agents present in food which nterfere with thyroxine synthesis lead to the development of

A. 1)toxic goitre

- B. 2) cretinism
- C. 3)simple goitre
- D. 4)thyrotoxicosis

Answer: C



- 3. Read the following statements
- I)Congenital hypothyrodism results in cretinism
- II)Myxoedema is characterised by accumula-tion
- of interstitial fluid below the skin

III)Eyes protrude in the patient suffering from

Grave's disease

The correct statements are

A. I and II only

B. II and III only

C. I,II and III

D. I and III only

Answer: A



4. The hormone which inhibits bone resorption is/are

A. 1)Calcitonin

B. 2)Calcitriol

C. 3)Parathromone

D. 4)(1) and (2)

Answer: A



5. Identify the incorrect matching

Endocrine gland Hormone

Pars distalis Growth Hormone

Endocrine gland Hormone

B. Parsintermedia Oxytocin

Endocrine gland Hormone

C. Pars nervosa Vasopressin

Endocrine gland Hormone

D. Thyroid $T_{-}(3),T_{-}(4)$

Answer: B



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6. Facial tissues swell and look puffy in case of

- A. Grestinism
- B. Graves's disease
- C. Anaphylaxis
- D. Endemic goiter

Answer: C



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7. The vitamin which works along with para thyroid hormone is

	· / · ·	•	
Α.	Vita	amine	! (

B. Calciferol

C. Tocopherol

D. Vitamin- B_{12}

Answer: B



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8. One of the following is correct statement

A. 1) T_4 is more active than T_3

B. 2) T_3 is more active than T_4

C. 3) T_3 and T_4 are the same

D. 4) None of the above

Answer: B



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9. Match the following and choose the correct one

Structure Related feature A) Epiphysis cerebri 1) Maintain proper levels of Ca2+ and phosphates B) Follicular cells 2) Regulates of thyroid pigmentation C) Pars intermedia 3) Circadian rhythms D) Parafollicular cells 4) Influences of thyroid menstrual cycle 5) Basal metabolic DMIT

- A. A-2,B-5,C-4,D-1
- B. A-3,B-5,C-2,D-1
- C. A-4,B-1,C-2,D-1
- D. A-3,B-1,C-2,D-5

Answer: B



Exercise li Parathyroid Gland

1. Hormone that stimulates the process of bone resorption is

A. Parathyroid hormone

B. Calorigenic hormone

C. Thyroxine

D. Catecholamines

Answer: A

2. Parathormone

A. Stimulate Vitamin A in liver

B. Stimulate Vitamin B_{12} in liver

C. Stimulate Vitamin D in Kidney

D. Stimulate Vitamin K in Kidney

Answer: C



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

A. Aderenaline

B. Noradrenaline

C. Parathormone

D. thyroxine

Answer: C



Exercise Ii Thymus

1. Maturation of T-Cells promoted by the hormone

A. Estradiole

B. Melatonin

C. Thymosin

D. Thyroxine

Answer: C



2. Which gland atrophies in adults?

- A. Pancreas gland
- B. Thymus gland
- C. Adrenal gland
- D. Thyroid gland

Answer: B



3.	Develo	pment c	of breast	tissue	in male	s called
•	DCVCIO		n bicast	LIJJAC	III IIIGIC	.s canca

- A. Eunuchoidism
- B. Precocious puberty
- C. Hypogonadism
- D. Gynacomastia

Answer: D



4. When both ovaries are removed from a rat which hormone is decreased in blood?

- A. Oxytocin
- B. Prolactin
- C. Estrogen
- D. Gonadotropin releasing factor

Answer: C



Exercise li Adrenal Gland

- 1. Cortisol is involved in
 - A. Controlling blood sugar levels
 - B. Controlling blood pressure
 - C. Reducing inflammation
 - D. All of the above

Answer: D



2. Spindly arms and legs,pot belly ,moon face,buffalo hump are some manifestations of

- A. Cushing's syndrome
- B. Addison's disease
- C. Parkinson's disease
- D. Graves disease

Answer: A



3. Which gland is called 4S and 3F?

A. 1)Thyroid gland

B. 2)Parathyroid gland

C. 3)Adrenal gland

D. 4) Hypothalamus

Answer: C



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4. Addison's disease results from

- A. Hyposecretion of adrenal
- B. Hypertrophy of gonads
- C. Hyperactivity of cells of Leydig
- D. None of these

Answer: A



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5. The heartbeat increase at the time of interview due to

- A. Secretion of adrenaline
- B. Corticotropic hormone
- C. Hypersecretion of renin
- D. Antidiuretic hormone secretion

Answer: A



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6. Conn's disease is caused by the over secretion of

B. 2)ADH	
C. 3)ACTH	
D. 4)None of these	
Answer: A	
Watch Video Solution	
7. Life saving hormone are secreted by	
A. Pituitary	

A. 1)Aldosterone

- B. Pineal
- C. Adrenal
- D. Thyroid



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8. The following are the hormones secreted by suprarenal glands

A)Cortisol

B)Catecholamines

C)Aldosterone D)Androgens Arrange them in a correct sequence as secrete by the concerned zones of the glands from outside to inside A. 1)C-S-A-B B. 2)C-A-D-B C. 3)A-D-C-B D. 4)A-C-D-B **Answer: B** Vatch Video Solution

9. The hormone which regulates homeostasis of minerals is secreted by

A. Zona reticularis of adrenal cortex

B. Zone glomerulosa of adrenal cortex

C. Zona fasciculata of adrenal cortex

D. Adrenal medulla

Answer: B



Exercise li Pancreas

1. Presence of ketone bodies in urine is called-----

A. Diabetes mellitus

B. Diabetes insipidus

C. Myxoedema

D. Endemic goiter

Answer: A



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

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

- A. Diabetes insipidus
- B. Diabetes mellitus
- C. Increase in ketone bodies
- D. Both (2) and (3)

Answer: D



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Exercise Ii Testis

- 1. In males, the spermatogenesis is regulated by
 - A. FSH
 - B. androgens
 - C. Both (1) and (2)
 - D. Hypothalamus



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- **2.** Compared to a bull a bullock is docile because of
 - A. Higher level of thyroxin
 - B. Higher levels of cortisone
 - C. Lower levels of bloos restosterone
 - D. Lower levels of adrenalin/noradrenalin in

its blood



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Exercise li Ovary

1. Match the following

a) Estrogen

1) Maintains corpusluteum

b) Progesterone 2) Spermatogenesis

e) Follicular

3) Supports pregnancy

stimulating

hormone

d) Luteinizing

4) Growth of ovarian foliuses

hormone

A. a-4,b-2,c-3,d-1

- B. a-1,b-2,c-3,d-4
- C. a-4,b-3,c-2,d-1
- D. a-2,b-1,c-4,d-3



- **2.** Read the following activites
- A)Oogenesis B)Ovulation
- C)Milk secretion D) Milk ejection

- A. A-B-C-D
- B. B-A-C-D
- C. A-B-D-C
- D. B-A-D-C

Answer: B



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Exercise Ii Other Endocrine Structures

- **1.** Hormones stimulate production of erythrocytes are
 - A. Aldosterone, Calcitonin, Cortisol
 - $B.\ Erythropoiet in, Thyrocal citon in, Growth$

Horomone

- C. Cortisol, Thyroxine, Erythropoietin
- D. Thyoxine ,Epinephrine,Erythropoietin

Answer: C



A. cat

B. muskdeer

C. Silkmoth

D. Honey bee

Answer: C



3. Gerandiol ,an aggregation pheromone is produced by

A. Honeybee

B. Silkmoth

C. Muskdeer

D. Cat

Answer: A



4. Mathc the following

List-l	List-II
A) Cholecystokinin	1) Stimulates secretion
	of gastric juice
B) Enterogastrone	2) Stimulates bicarbo-
	nate secretion by
	pan-creas
C) Gastrin	3) Contraction of gall
	bladder
D) Secretin	4) Inhibits secretion of
	gastric juice

- A. A-3,B-1,C-4,D-2
- B. A-1,B-4,C-3,D-2
- C. A-4,B-1,C-3,D-2
- D. A-3,B-4,C-1,D-2

Answer: B



- **5.** Which of the following help in communication with the other members of the same species
 - A. Hormones
 - **B.** Automones
 - C. Pheromones
 - D. Autocoids



6. Which of the following is not an example of sex pheromone

- A. Bombicol
- B. Muskone
- C. Formic acid
- D. Civetone



7. Presence of fats and chyme in the food causes duodenum to produce this polypeptide hormone

A. secretin

B. Gastric inhibitory peptide

C. Gastrin

D. Cholecystokinin

Answer: D



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Exercise Ii Mechanism Of Hormonal Action

1. Which is not involved as second messenger in

 Ca^{2+} mediated hormone ?

A. cAMP

B. DAG

C. Phospholipase

D. IP_3

Answer: A



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2. Read the following arrange them in a correct sequence in the activity of Epinephrine on the liver cells

A)Formation of cAMP

B)Epinephrine binds to membrane receptor

C)Activation of phosphorylase

D)G protein binds to GTP and activates

adenylate cyclase

E)Activation of protein kinase A

F)Phosphorylation of glycogen to glucose-6 phosphate

A. BADECF

B. BDAECF

C. BADFCE

D. BDAFCE

Answer: B



3. Second messengers are activated in response to

A. Steroid hormones

B. thyroxine

C. hydrophilic hormones

D. all of these

Answer: C



Exercise lii Previous Aipmt Neet Questions

- **1.** Hypersecretion of Growth Hormone in adults does not cause further increase in height because
 - A. Growth hormone becomes inactive in adults
 - B. Epiphyseal plates close after adolescence
 - C. Bones loose their sensitivity of Growth hormone in adults

D. Muscle fibres do not grow in size after birth

Answer: B



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2. GnRH, a hypothalamic hormone, needed in reproduction, acts on

A. anterior pituitary gland and stimulates secretion of LH and oxytocin.

- B. Anterior pituitary gland and stimulates secretion of LH and FSH
- C. Poserior pituitary gland and stimulates secretion of ozytocin and FSH
- D. Poserior pitutary gland and stimulates secretion of LH and relaxin

Answer: B



3. Which hormones do stimulate the production of pancreatic juice and bicarbonate?

A. Gastrin and insulin

B. Cholecystokinin and secretin

C. insulin and glucogon

D. Angiotensin and epindephrine

Answer: B



- 4. Graves' disease is caused due to
 - A. Hypersecretion of thyroid gland
 - B. hyposecretion of adrenal gland
 - C. hypersecretion of adrenal gland
 - D. hyposecretion of thyroid gland

Answer: A



5. Neme a peptide hormone which acts mainly on hepatocytes, adipocytes and enhances cellular glucose uptake and utilization.

A. Glucagon

B. Secretion

C. Gastrin

D. Insulin

Answer: D



6. Osteoporsis, an age-related disease fo skeletal system, may occur due to

A. High concentration of $Ca^{\,+\,+}$ and $Na^{\,+}$

B. Decreased level of estrogen

C. accumulation of uric acid leading to inflammation of joints

D. immune disorder affecting neuromuscular junction leading to fatigue

Answer: B



7. The posterior pituitary gland is not a 'true' endocrine gland because

A. it only stores and releases hormones

B. it is under the regulation of

hypothalamus

C. it secretes enzymes

D. it is provided with a duet

Answer: A

8. Several hormones like hCG, hPL, estrogen, progesterone are produced by

A. Placenta

B. Fallopian tube

C. pituitary

D. ovary

Answer: A



9. Which of the following pairs of hormones are not antagonistic (having opposite effect) to each other?

A. Parathomone-Calcitonin

B. Insulin-Glucagon

C. Aldosterone-Atrial Natriuretic factor

D. Relaxin-Inhibin

Answer: D



10. Select the incorrect statement

- A. FSH stimulates the sertoli cells which help in sperminogenesis
- B. LH triggers ovulation in ovary
- C. LH and FSH decrease gradually during the follicular phase
- D. LH trigger secretion of androgens from the Leydig cells



11. Changes in GnRH pulse frequency in females is controlled by circulating levels of

- A. estogen and progesterone
- B. etrogen and inhibin
- C. progesterone only
- D. progesterone and inhibin

Answer: A



- 12. Identify the correct statement on inhibin
 - A. Inhibits the secretion of LH,FSH and prolactin
 - B. Is produced by granulose cells in ovary and inhibits the secretion of FSH

C. Is produced by granulose cells in ovary and inhibits the secretion of LH

D. Is produced by nurse cells in tests and inhibits the secretion of LH

Answer: B



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13. The amino acid Tryptophan is the precursor for the synthesis of

- A. Melatonin and serotonin
- B. thyroxine and triiodothyronine
- C. estrogen and progesterone
- D. cortisol and corlsore

Answer: A



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14. A chemical signal that has both endocrine and neural roles is

- A. Cortisol
- B. Melatonin
- C. Calcitonin
- D. Epinephrine

Answer: D



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15. Which one of the following hormones is not involved in sugar metabolism?

- A. Glucagon
- B. Cortisone
- C. Aldosterone
- D. Insulin

Answer: C



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16. Which of the following events is not associated with ovulation in human female?

- A. LH surge
- B. Decrease in estradiol
- C. Full development of Graafian follicle
- D. Release of secondary oocyte



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17. Which one of the following hormones is thought to be synthesised elsewhere, but is stored and released by the master gland?

- A. Melanocyte stimulating hormone
- B. Antidiuretic hormone
- C. Luterinizing hormone
- D. Prolactin



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18. Identify the hormone with its correct matching of source and function

- A. Oxytocin-posterior pituitary growth and maintence of mammary glands.
- B. Melatonin-pineal gland, regulates the normal rhythm of sleep-wake cycle
- C. Progesterone-corpus luteum, stimulation of growth and activities of female sex organs
- D. Artial natriuretic factor-ventricular wall,increase the blood pressure

- 19. Fight-or-flight reactions cause activation of
 - A. The parathyroid glands ,leading to increased metabolic rate
 - B. The kidney ,leading to suppresion of reninagiotensin-aldosterone pathway
 - C. The adrenal medulla ,leading to increased secretion of epinephrine and norepinephrine

D. The pancreas, leading to a reduction in the blood sugar levels

Answer: C



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20. A pregnant female delivers a baby who suffers from stunted growth, mental retardation, low intelligence quotient and abnormal skin.

This is the result of

- A. Cancer of the thyroid gland
- B. Oversecretion of pars distalis
- C. Deficiency of iodine in diet
- D. Low secretion of growth hormone

Answer: C



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21. Wich of the following statements is correct in relation to the endocrine system?

- A. Non-nutrient chemicals produced by the body in trace amounts that act as intercellular messenger are known as hormones
- B. Releasing and inhibitory hormones are produced by the pituitary gland
- C. Adenohypophysis is under neural regulation of the hypothalamus
- D. Organs in the body like gastrointestinal tract, heart, kidney and liver do not

produce any hormones

Answer: A



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22. Select the answer which correctly matches the endocrine gland with the hormone it

secretes and its function/ deficiency symptom

Endocrine gland	Hormone	Function/ deficiency symptoms
(1) Thyroid gland	Thyroxine	Lack of iodine in diet results in goitre
(2) Corpus	Testoste-	Stimulates
luteum	rone	spermato- genesis
(3) Anterior of pituitary		Stimulate uterus cont- raction during child birth
(4) Posterior	J. J. J.	Oversecretion stimulates
pituitary	GH)	abnormal growth

A. {:("Endocrine","Hormone","Function

deficincy

symptoms"),

("1)Thyroid", "thyroxine", "Lack of iodine in

diet result in goitre"):}

```
B. {:("Endocrine","Hormone","Function
```

```
deficincy symptoms"),("2)Corpus
luteum","Testos","stimultes spermato-
genesis terone"):}
```

C. {:("Endocrine","Hormone","Function

```
deficincy symptoms"),("3)Anterior
pituitary","Oxytocin

contraction","Stimulates uterus uring
```

child birth"):}

D. {:("Endocrine","Hormone","Function deficincy symptoms"),("4)Posterior pituitary","Growth stimulates hormone","Oversecretion abnormal growth"):} **Answer: A Watch Video Solution**

23. Answer the following

(a) Name the endocrine gland associated with

```
brain?
(b) Which gland secretes digestive enzymes as
well as hormones?
(c) Name the endocrine gland associated with
kidneys?
(d) Which endocrine gland is present in males
but not in females?
   A. {:("Endocrine
     gland","Hormone","Function"),
     ("1)Placenta", "Estrogen", "Initiates secretion
     of the milk"):}
```

```
B. {:("Endocrine
  gland","Hormone","Function"),("2)Corpus
  luteum", "Estrogen", "Essential formain
  tenance of endometrium"):}
C. {:("Endocrine
  gland","Hormone","Function"),
  ("3)Leydig's","Androgen","Initiates
                                         the
  production of sperms"):}
D. {:("Endocrine
```

gland","Hormone","Function"),

("4)Ovary","FSH","Stimulates follicular

development and the secretion of estrogens"):}

Answer: C



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24. Norepinephrine

(i)Is released by sympathetic fibres

(ii)Is released by parasympathetic fibres

(iii)Increases the heart rate

(iv)Decreases blood pressure

Which of the above statements are correct?

A. (i) and (iii)

B. (ii) and (iii)

C. (ii) and (iv)

D. (i) and (iv)

Answer: A



25. Which of the following represents the action of insulin?

A. Increases blood glucose level by stimulating glucagon production

B. Decreases blood glucose levels by forming glycogen

C. Increases blood glucose levels by promoting cellular of glucose

D. increses blood glucose levels by

hydrolysis of glycogen



26. Which one of the following pairs of horomones are the examples of those that can easily pass through the cell membrane of the target cell and bind to a receptor inside it (mostly in the nucleus)

A. Insulin, glucagon

B. Thyroxine, insulin

C. Somatostatin, oxytocin

D. Cortisol, testosterone

Answer: D



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27. A person entering an empty room suddenly finds a snaks right in front on opening the door. Which one of the following is likely to happen in his neurohormonal control system?

- A. Sympathetic nervous system is activated
 - releasing epinephrine and norepinephrine from adrenal medulla
- B. Neurotransmitters diffuse rapidly across the cleft and transmit a nerve impulse
- C. Hypothalamus activates the parasympathetic division of brain
- D. Sympathetic nervous system is activated releasing epinephrine and
 - norepinephrine from adrenal cortex

Answer: A



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

A. Glucagon is secreted by β cells of islets of

Langerhans and stimulates

glycogenolysis

B. Secretion of thymosins is stimulated with

aging

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

D. FSH stimulates the secretion of estrogen and progesterone

Answer: C



29. Match the source gland with its respective hormone and function and select the correct

option

Source gland	Hermone	Function
1) Anterior	Chylisen	Contraction
pitultary	hormone	pituitary uterus muscles during child birth
2) Posterior	Vasopressin	stimulates
pitumary		resorption of water in the
distal		tubules in
the		nephron
Corpus luteum	Oostrogen	Supports
		pregnancy
4) Thyroid	Thyroxine	Regulates
		blood calcium
		level



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30. 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.

GLAND	SECRETION	EFFECT ON BODY
Α	000111	Maintenance of secondary sexual
Alpha cells of	В	characters Raises blood sugar level
Islets of Langerhans Anterior pituitary	С	Over secretion leads to gigantism



31. The 24 hour (diurnal) rhythm of our body such as the sleep - wake cycle is regulated by the hormone

- A. Calcitonin
- B. Prolactin
- C. Adrenaline
- D. Melatonin

Answer: D



32. Injury to adrenal cortex is not likely to affect the secretion of which one of the following?

A. Aldosterone

B. Both androstenedione and dehydro epiandro-sterone

C. Adrenaline

D. Cortisol

Answer: C



33. Low $Ca^{+\,+}$ in the body fluid may be the cause of

A. Tetany

B. Anaemia

C. Angina pectoris

D. Gout

Answer: A



34. Which one of the following pairs is incorrectly matched?

- A. Glucagon-beta cells(source)
- B. Somtostatin-delta cells(source)
- C. Corpus luteum-relaxin(secretion)
- D. Insulin -Diabetes mellitus(disease)

Answer: A



35. Toxic agent present in food which interferes with thyroxine synthesis, leads to the development of

- A. toxic goitre
- B. cretinism
- C. simple goitre
- D. thyrotoxicosis

Answer: D



36. Select the correct matching of a hormone, its source and function.

Hormone	Source	Function
(1) Vasopressin	Posterior Pituitary	Increases loss of water through urine
(2) Norepine- phrine	Adrenal medulla	Increases heart beat, rate of respiration & alertness
(3) Glucagon	Beta-cells of Islets of langerhans	Stimulates glyco- genolysis
(4) Prolactin	Posterior Pituitary	Regulates growth of mammary glands and milk forma- tion in females

37. A health disorder that results from the deficiency of thyroxine in adluts and characterized by (i) a low metabolic rate, (ii) increase in body weight and (iii) tendency to retain water in tussues is

- A. Simple goitre
- B. Myxoedema
- C. Cretinism
- D. Hypothyroidism



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

- A. Thymus and testes
- B. Adrenal and ovary
- C. Parathyroid and adrenal
- D. Pancreas and parthyroid

Answer: C



39. The blood calcium level is lowered by the deficiency of

- A. Both calcitonin and parathormone
- B. Calcitonin
- C. Parathormone
- D. Thyroxine

Answer: C



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40. Feeling the tremors of an earthquake, a scared residnet of seventh floor of a multistoryed building starts climbing down the stairs rapidly. Which hormone initiated this action?

A. Adrenaline

B. Glucagon

C. Gastrin

D. Thyroxine

Answer: A



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41. 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. Thyroid
- D. Parathyroid

Answer: D

