

BIOLOGY

BOTANY AND ZOOLOGY FOR NEET AND AIIMS

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

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 contril endocrine

 activity



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

A. thyroxine

B. oxytocin

C. estradiol

D. epinephrine



- **4.** 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 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 commination 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



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8. "Tropic hormones" Means

A. Pituitary hormones

B. Local hormones

C. Hormones that effect another 'target'

endocrine gland

D. Hormoned 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. Pgysico-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 bery simple endocrine system
- B. Vertabrates 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

1. Gonadotropin releasing Hormone (GnRH) is produced by

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



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2. Somatosotatin 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 | eurosecretory ce | | | | |

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



- 4. Somatostatin from hypothalamus gland
 - 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 hormone | es are secreted | by |
|----|-------|--------|------------|-----------------|----|
| | | | • | | , |

A. Pituitary hormones

B. Thyroid

C. Hypothalamus

D. Adrenal

Answer: C



6. Majority of endocrine secretions are released in to

- 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 \rightarrow TSH \rightarrow Thyroxine

Answer: C



Exercise I Pituitary Gland

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

Answer: D



| 2. Oxytocin and vasopressin | are transported t | O |
|------------------------------------|-------------------|---|
| neurohypophysis 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

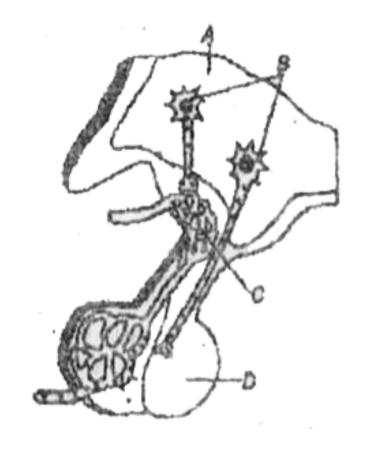
C. pars tuberalis

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



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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



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- 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



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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. Seetoli 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

A) Hypothalamus

1) Lactation after child birth

B) Anterior
2) Resbsorption of water 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 synthesized by both brain and endocrine glands?

A. ACTH

B. Cortisol

C. Oxytocin

D. Somatostatin

Answer: D



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14. Vigorous contraction of uterus and milk ejection from the mammary glands are due to

A. LH

B. FSH

C. Oxytocin

D. Progesterone

Answer: C



15. Two hormones......(a).....and

(b).....synthesize in hypothalamus and transported in pituitary gland through

(C)......And(d)....respectively.

A. a=oxytocin \rightarrow 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



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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



- 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



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

A. hGH

B. ACTH

C. LTH

D. ICSH

Answer: A



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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



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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



23. Diabetes insipidus occurs due to the deficiency of

- A. Glucagon
- B. Insulin
- C. ADH
- D. Secretin

Answer: C



24. Hypersecretion of hGH during adulthood causes

- A. Dwarfism
- B. Osteoporosis
- C. Acromegaly
- D. Addison's disease

Answer: C



25. Disproportionate gigantism is termed

- A. Acromegaly
- **B.** Cretinism
- C. Dwarfism
- D. Myxoedema

Answer: A



- **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

27. Pigmentation of skin is influenced by

A. FSH

B. LH

C. MSH

D. ACTH

Answer: C



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,Dprevents ovulation.

Answer: A



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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 ovarv

Answer: A



31. Corpus luteum is maintained by

A. Luteizing hormone & lactogenic

B. Luteotropic hormone & FSH

C. ICSH & progsterone

hormone

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 diseases 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 r | hythm | 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 | is | influenced | by |
|------------------------|---------|----|------------|----|
|------------------------|---------|----|------------|----|

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. | Α | hormone | responsible | for | normal | sleep- |
|----|----|----------|-------------|-----|--------|--------|
| wa | ke | cvcle 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



| 3 TL . | | _1 | | | |
|---------------|---------|---------|-------|-------|----|
| 2. The | thyroid | giand i | s com | posea | OT |

A. follicles

B. stromal tissue

C. trachea

D. Both (1) and (2)

Answer: D



3. Cretinism,mental retardation,low intelligence quotient,abnormal skin,deafmutism ,etc.are the result of

- A. hyperthyroidism
- B. goitre
- C. hypothyroidism
- D. Both (2) and (3)

Answer: C



| 4 | Hypoth | vroidism | during | pregnancy | leads to |
|----|--------|-------------|--------|-----------|----------|
| т• | пуросп | yi Olulalii | uuring | pregnancy | icaus to |

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 hormones?

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

Answer: D



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

A. Myxoedema

B. Acromegaly

C. Cretinism

D. Goitre

Answer: B



10. Match the following and choose the

V) Hyper secretion of hGH

in adults

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

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



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12. Hashimoto disease is an autoimmune disorder that effects

- A. brain
- B. adrenal cortex
- C. Thyroid gland
- D. adrenal medulla

Answer: C



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13. Hypothyroidism in adult human beings causes

- A. Cretinism
- B. Exopthalmos
- C. Dwarfism
- D. Myxoedema

Answer: D



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14. 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



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16. T_3 and T_4 hormones are synthesised by

A. follicles

B. stromal tissue

C. isthmus

D. Both (1) and (3)

Answer: A



17. Hyper secretion of thyroxine causes

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

Answer: A



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



20. Acromegaly is casued by

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

Answer: A



- **1.** PTH is a
 - A. hypercalcemic hormone
 - B. hypocalcemic hormone
 - C. endocalcemic hormone
 - D. exocalcemic hormone

Answer: A



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



3. PTH is

A. Hyperglucemic hormone

B. hypoglycemic hromone

C. Hypocalcemic hormone

D. Hypercalcemic hormone

Answer: D



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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 deficiecny disease?

- A. Relaxin-cretinism
- B. Parathaormone-tetany
- C. Insulin-diabetes insipidus
- D. Prolactin-astigmatism

Answer: B



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6. Which of the following regulate the blood calcium and photsphate level?

- A. Glucagon
- B. growth hormone
- C. Parathyroid hormone
- D. Thyroxine

Answer: C



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7. Osteroporosis,osteomalacia.kidneystone formation are due to

- A. Hyper parathyroidism
- B. Hyperthyroidism
- C. Hyper insulinimia
- D. Hypothyroidism

Answer: A



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8. Cell division, protein synthesis, growth of muscle and growth to bones are regulated by

- 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
 - 5) 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



Exercise I Thymus Gland

1. Thymus gland releases

- A. T_4
- B. T_3
- C. Thymosins
- D. TCT

Answer: C



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

A. Immunosuppressant

B. Die immediately

C. No adverse reaction

D. Myasthenia gravis

Answer: C



3. Major roles of thymus gland in humans is/are

A. Differentiation of T-lymphocytes

B. Differentiation of B-lymphocytes

C. Promote production of antibodies

D. Both (1) and (3)

Answer: D



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



5. This one plays an important role in immune system

A. Pineal gland

B. thyroid

C. parathyroid

D. Thymus gland

Answer: D



6. Thymosin plays an important role in differentiation of

A. RBCs

B. T-lymphocytes

C. NK cells

D. Dendritic cells

Answer: B



7. "Tyrosin" is important in tge formation of

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

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 cuase 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 secondaty sec characters
- C. Stimulate the growth of mammary gland
- D. All of the above

Answer: D



10. Thymosin is responsible for (NCERT

Exemplar)

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

A. thyroxine,insulin

- B. insulin, glucagon
- C. catecholamines
- D. corticoids



- 2. Adrenaline and noradrenaline donot pomote
 - A. Breakdown of proteins

- B. breakdown of lipids
- C. glycogenesis
- D. glycogenolysis



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

- C. Cortisol
- D. Aldosterone



- **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

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:

- A. Increased blood sodium levels
- B. Increased blood glucose levels
- C. Decreased blood calcium levels
- D. Increased dehydration

Answer: A



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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



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



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



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. Total ceasation of insulin secretion

Answer: C



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



- 13. Identify the wrong statement.
 - A. Hypersecretion of corticosteroids causes cushing's disease
 - B. Hypersecretion of thyroxine in adults causes Graves's disease
 - C. Hyposescretion of adrenal medullry
 - hormones causes addison's disease
 - D. Simple goilter is an endemic disease

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



16. Addison's disease is due to the

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



17. Addison's disease is due to the

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

Answer: C



18. Adrenaline and noradrenaline are hormones that can act as

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

Answer: B



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 | 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



22. Epinephrine is secreted by

- 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



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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



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

| Symptom | Disorder |
|-----------------------|-------------------------------|
| A) Hypersecretion | 1)Flushed facial skin |
| of cortisol | |
| B) Cushing's Syndrome | 2)Skin with bronzed |
| | appearance |
| C) Myxoedema | 3)Stretch marks on abdomen |
| D) Addison's disease | 4)Pale skin |
| D) Addison's disease | |
| | 5)Swelling of facial |
| | tissue |

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

Answer: D



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25. Match the following and select the correct option

List-I

I) Melatonin

A) Fight-or-Flight response

II) Adrenalin

III) Cortisol

IV) Oxytocin

C) Sets Biological clock

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



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



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

- A. insulin
- B. melatonin
- C. aldosterone
- D. testosterone

Answer: C



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

- A. Glucogon
- B. ACTH
- C. Insulin
- D. Adrenaline

Answer: D



29. A steroid hormone which regulates glucose metabolism is

- A. Cortisone
- **B.** Cortisol
- C. Corticosterone
- D. 11-Deoxyxorticosterone

Answer: B



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

- A. Acetylchline
- B. Epinephrine
- C. Norepinephrine
- D. Cortisone

Answer: D



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



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



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



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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 hormoe is responsible for her restlessness?

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

Answer: C



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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



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36. Costisol is secreted from gland called

A. Pancreas

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

Answer: C



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Exercise I Pancreas

1. Hyperglycemia is due to

A. Hypersecretion of glucocorticoids and

hyposecretion of insulin

B. Hypersecretion of glucocorticoids and hyposecretion of glucagon

C. Hyposecetion of glucagon and

hypersecretion of Insulin

D. Hypersecrection of glucocorticoids and insulin

Answer: A



2. Choose the correct sequence of events that occur duing regulation of blood glucose(i)Increase in blood glucose(ii)Increase in circulating glucagone(iii)Release in glucose from glycogen

A. ,iii,ii,i

B. iii,I,ii

C. ,ii,iii,i

D. I,ii,iii

Answer: B



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- 3. Hyperglycemic hormone is
 - 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



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5. Diabetes mellitus is characterized by

A. Loss of appetite

B. Loss of growth

C. loss 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. Luteizing hormone-Failure of ovulation

B. Insulin-Diabetes insipidus

C. Thyroxine-Tetany

D. 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



- 8. Find the odd one out
 - A. Parathyroid-Tetany
 - B. Pancreas-Diabetes insipidus
 - C. Adrenal cortex-cushing's syndrome
 - D. thyroid -goitre

Answer: B



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



- 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



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,Dadipocytes

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



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

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-L and statement-L are wrong

Answer: A



- **13.** A patient of diabetes mellitus excretes glucose in utine even when he is kept in a carbohydrate 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



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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



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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



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16. Glucagon is

- A. Protein hormone
- B. Increases the blood sugar
- C. Hyperglycmic hormone

D. All of the above

Answer: D



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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. Thyroxine-tetanus

B. insulin-diabetes insipidus

C. aderenaline-heptatitis

D. MSH-metachrosis

Answer: D

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

Statement-II :Pancreas produces enzymes and hormones.

- A. Both S-I and S-II are correct
- B. S-I is incorrect S-II is correct
- C. Both S-I and S-II are incorrect
- D. S-I is correct S-II is correct

Answer: A



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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



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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



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- 23. Hypoglycemia is associated with
 - A. Hyperinsulinism
 - B. hypothyroidism
 - C. Cushing's disease
 - D. Diabetes insipidus

Answer: A



Exercise I Testis

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

- 2. Not a function with androgen influence is
 - A. Libido
 - B. Catabloism of proteins
 - C. Spermatogenesis
 - D. Anabolism of proteins

Answer: B



- 3. Androgens regulates
 - A. Development of accessory sex organs
 - B. Myscular growth
 - C. Maturation of accessory sex organs
 - D. All of the above

Answer: D



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. Leydig cells secrete

A. Intermedian

B. Inhibin

C. Testosterone

D. Fertilizin

Column-A

Answer: C



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6. Choose the correct option among the following

Column R

| Column-A | Column-B |
|-----------------------|------------------------|
| A)Epinephrine | 1) 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-II,D-IV
- 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-Il |
|----------------|----------------------------------|
| A) Testis | Pigmentation |
| B) Ovaries | 2) Circadian rhythm |
| C) Pineal body | 3) Estrogen |
| D) Melanin | 4) Testosterone |

Answer: C



2. Leydig cells produce a group of hormones called

A. Androgens

B. Estogens

C. aldosterone

D. Gondotropins

Answer: A



3. The progesterone Is a hormone .which is

A. a protein useful for morphogenesis

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 inhibi | n is | secreted | by |
|------------------------------|------|----------|----|
|------------------------------|------|----------|----|

- A. Zona pellucida
- B. Ovary
- C. Corpus lulteum
- D. Uterine epithelium

Answer: C



5. Progesterone is secreted by the cells of

A. Corpus luteum

B. Corpus callosum

C. Corpus albicans

D. Macula lutea

Answer: A



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),-Cgland development.

A. A-female,B-ovearian follicles,C-mammary

B. A-male,B-ovarian follicles,C-mammary

C. A-female,B-tyroid follicles,C-mammary

D. A-female ,B-varian follicels,C-uterine

Answer: A



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7. Which one of the following is anti abortion hormone?

A. Relaxin

B. Progesterone

C. Estrogen

D. epinephrine

Answer: B



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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



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

A)Pineal I)Epinephrine

B)Thyroid II) Melatonin

C)Ovary III)Estrogen

D)Adrenal medulla IV)Tetraiodothyronine

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

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

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

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

Answer: D



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

Answer: B



- 2. Corpus luteum secrets a
 - 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) Epinophrine | 4) Increase in heart beat | | | | | |

- A. A-1,B-2,C-3,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: A

erythroclasia.

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

Statement II:Erythropoietin stiulates

A. Both statement I & statement II are wrong

B. Statement I is true & statement II is wrong

C. Both statement I & statement II are correct

D. Statement I is wrong & statement II is correct

Answer: A



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



12. Erythropoietin

- A. Stimulates erythoropoiesis
- B. inhibits erythropoiesis
- C. inhibits platelets formation
- D. stimulates platelets formation

Answer: A



13. CCK acts on

- A. Pancreas
- B. gall bladder
- C. Both (1) and (2)
- D. 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. secretin ,enterokinin,gastrin

B. Gametokinetic factor ,testosterone,LTH

C. ADH, Pitressin, and vasopressin

D. 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 Watch Video Solution | | | | | | |
| | | | | | | |

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 a secretion of 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. V | Vhich | one | of | the | follov | ving | is | not | а | second |
|-------------|-------|-------|----|-----|--------|------|----|-----|---|--------|
| me | sseng | er in | ho | rmo | ne ac | tion | ? | | | |

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. None of the above

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

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

melatonin

D. Both statement -I

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



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8. Estrogen and restosterone 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. Acording to accepted concept of hormone action, if receptor molecules are removed from target organ, 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. II,IV and VI
- B. I,III and V
- C. I,IV and VI
- D. II,III and V

Answer: A



14. Secretion of aldosterone is under the control of

A. Hypothalamic portal system

B. Hypothalamo-hypophyseal tract

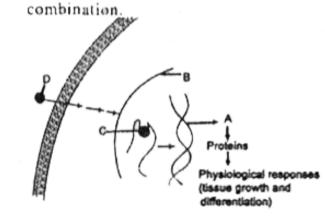
C. RAAS pathway

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 .Which is the correct

location of these receptors in case of protein hormones

A. Extra cellular matrix

B. Blood

C. Plasma membrane

D. Nucleus

Answer: C



1. Which of the following hormones is a derivative of amino acid?

A. Prostaglandin

B. Progesterone

C. Epinephrine

D. Estogen

Answer: C



2. Father of Endocrinology

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

Answer: B



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. This one becomes neuro-hypophysis

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

List-II

A) V-shaped

I) telocentric

chromosome

B) L-shaped chromosome II) metacentric

C) J-shaped

III) sub-metacentric

chromosome

IV) acrocentric

D) I-shaped chromosome

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. Cochiea
 - B. Vestibular apparatus
 - C. Hypophysis
 - D. Epiphysis cerebri

Answer: D

5. Estradiol is a

A. Glucocorticoid

B. Mineralo corticoid

C. Gonadotropin

D. Oestrogen

Answer: D



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

Identify the hormones that considered as

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

Answer: B



- **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. I and II

B. I,II and III and IV

C. II,III and IV

D. III and IV

Answer: B



8. Identify the mismatched combination from the follwing

- A. Peptide hormone-vasopressin
- B. Protein hormone-Insulin
- C. Amine hormone-Melatonin
- D. Oestrogen-Protein hormone

Answer: D



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

A. Pineal

B. Thymus

C. Placenta

D. Kldney

Answer: C



Exercise li Hypothalamus

- 1. The main function of hypothalamus
 - A. Acts as biological cycle
 - B. To act an interface between nervous and
 - endocrine systems
 - C. To form neurohypophysis
 - 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



Exercise li Pituitary Gland

- 1. Prolactin controlling agent is
 - 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. direct neural regulation of the adenohypophysis

B. direct neural regulation of the hypothalamus

C. direct axonal regualtion of the adenohypophysis

D. 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



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

A. Adrenal cortex

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



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

- C. Dwarfism
- D. Cretinism

Answer: D



- 7. Hyposecrection of ADH cuases
 - 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. Piutary 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. Which hormone secretion is under nervous control

A. Adrenal cortex

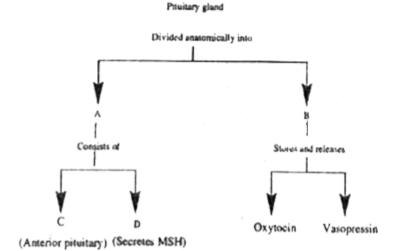
- B. Anterior pituitary
- C. Posterior pituitary
- D. Pineal body

Answer: C



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12. identify A,B,C and D in the given flowchart and select 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



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Exercise Ii Pineal Gland

| 1. Which | one | İS | derived | from | the | aminoacid |
|-----------------|-----|----|---------|------|-----|-----------|
| tryptopha | an | | | | | |

- A. Melanion
- B. Melatonin
- C. Insulin
- D. Thyroxine



- **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



3. Which of the following is responsible for slee wake 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



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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. toxic goitre

- B. cretinism
- C. simple goitre
- D. 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. Calcitonin

B. Calcitriol

C. Parathromone

D. (1) and (2)

Answer: A



5. Identify the incorrect matching

Endocrine gland Hormone

7. Pars distalis Growth Hormone

Endocrine gland Hormone

Parsintermedia Oxytocin

Endocrine gland Hormone

Pars nervos Vasopressin

Endocrine gland Hormone

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

Answer: B



| 6. | Facial | tissues | swell | and | look | puffy | / in | case | of |
|----|--------|---------|-------|-----|------|-------|------|------|----|
| | | | | | | | | | |

A. Grestinism

B. Graves's disease

C. Myxoedema

D. Endemic goiter

Answer: C



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

- A. Vitamine C
- **B.** Calciferol
- C. Tocopherol
- D. Vitamin- B_{12}

Answer: B



8. One of the following is correct statement

A. T_4 is more active than T_3

B. T_3 is more active than T_4

C. T_3 and T_4 are the same

D. None of the above

Answer: B



9. Match the following and choose the correct

one

Structure A) Epiphysis cerebri 1) Maintain proper levels of Ca²⁺ and phosphates B) Follicular cells of thyroid C) Pars intermedia D) Parafollicular cells of thyroid Sircadian rhythms D) Parafollicular cells of thyroid Sircadian rhythms D) Parafollicular cells S) Basal metabolic

DMCC.

- 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



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Exercise li Parathyroid Gland

- **1.** Hormone that stimulates the process of bone resorptionis
 - A. Parathryoid hormone
 - B. Calorigenic hormone
 - C. Thyroxine

D. Catechloramines

Answer: A



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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
 - A. Aderenaline
 - B. Noradrenaline
 - C. Parathormone
 - D. thyroxine

Answer: C



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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



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- 3. Development of breast tissue in males called
 - A. Eunuchoidism
 - B. Precocious puberty
 - C. Hypogonadism
 - D. Gynacomastia

Answer: D

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

A. Oxytocin

B. Prolactin

C. Estrogen

D. Gonadotropin releasing factor

Answer: C



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- 5. Maturation of T-cells require
 - A. Thyroid hormone
 - B. Calcitonin hormone
 - C. Thymosin hormone
 - D. Vitamin-D

Answer: C



Exercise li Adrenal Gland

- 1. Cortisol is involved in
 - A. Maintaining cardio -vascular system
 - B. Kidney functions
 - C. RBC production
 - 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. Thyroid gland
 - B. Parathyroid gland
 - C. Adrenal gland
 - D. Hypothalamus



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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. ADH | |
|--|--|
| C. ACTH | |
| D. None of these | |
| | |
| Answer: A | |
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| | |
| 7. Life saving hormone are secreted by | |
| A. Pituitary | |

A. Aldosterone

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



- **8.** The following are the hormones secreted by suprarenal glands
- A)Cortisol
- B)Catecholamines

C)Aldosterone

D)Andogens

Arrange them in a correct sequence as secrete by the concerned zones of the glands from outside to inside

A. C-S-A-B

B. C-A-D-B

C. A-D-C-B

D. A-C-D-B

Answer: B



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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. Elevated levels of ketone bodies in blood is the clinical symptom of

A. Diabetes mellitus

B. Diabetes insipidus

C. Myxoedema

D. Endemic goiter

Answer: A

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

Answer: D



3. Set of hormones that play a vital role in growth

A. Insulin ,epinephrine ,calcitonin

B. Thyroxine,corticoids,MSH,

C. hGH,ADH,TSH

D. Insulin, thyroxine, hGH

Answer: D



Exercise Ii Testis

- 1. Eunuchoidism is due to
 - A. Failure of testosterone
 - B. Hyper secretion of testosterone
 - C. Hyper secretion of cortisol
 - D. Hyper secretion of estrogen

Answer: A



2. In males,the spermatogenesis is regulated by

A. FSH

B. androgens

C. Both (1) and (2)

D. Hypothalamus

Answer: C



3. Compared in 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

Answer: C



Exercise Ii Ovary

1. Mathc the following

- a) Estrogen
- 1) Maintains corpusluteum
- b) Progesterone 2) Spermatogenesis
- e) Follicular stimulating

3) Supports pregnancy

hormone

- d) Luteinizing hormone
- 4) Growth of ovarian follows



- 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. Erythropoietin, Thyrocalcitonin, Growth

Horomone

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



- 2. Bombycol, a pheromone secreated by
 - A. cat
 - B. muskdeer
 - C. Silkmoth

D. Honey bee

Answer: C



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3. Gerandiol ,an aggregation pheromone is produced by

A. Honeybee

B. Silkmoth

C. Muskdeer

D. Cat

Answer: A



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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



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5. Which of the following help in communication with the other members of the same species

- A. Hormones
- B. Automones
- C. Pheromones
- D. Autocoids



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

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



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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 of the following is not involved as second messenger in Ca^{2+} mediated hormones?

A. cAMP

B. DAG

C. Phospholipase

D. IP_3

Answer: A



- 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



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3. Second messengers are activated in response to

- A. Steroid hormones
- B. thyroxine
- C. hydrophilic hormones
- D. all of these



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Exercise Iii 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. grave's 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. Name a peptide hormone which acts mainly on hepatocytes adipocyts and enhances cellular glucose uptake and utilization

- A. Glucagon
- **B.** Secretion
- C. Gastrin
- D. Insulin

Answer: D



6. Osteroporosis,an age-related disease of 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. Sevral hormones like hCG,hPL,estrogen,progesterone are produced by

A. Placenta

B. Fallopian tube

C. pituitary

D. ovary

Answer: A

9. Which of thefollowing pairs of hormones are not antagonistic (having opposite effects)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 andogens from the Leydig cells

Answer: C



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11. Charges 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 neutral roles is:

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

Answer: D



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15. Which one of the following harmones is not involved in sugar metabilism?

- 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 though synthesised elsewhere ,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 is correct matching 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 a 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. Which 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

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

hormone","Oversecretion stimulates

abnormal growth"):}

Answer: A



23. Name the endocrine gland which is present on the kidneys.

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
     estrogens"):}
Answer: C
```

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 (ii)

B. (ii) and (iii)

C. (ii) and (iv)

D. (i) and (iv)

Answer: A



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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 hormones are the examples of those that can easily pass through the cell membrane of the target cell and blind to a receptor inside it(mostly in the nucleus)?

- A. Insulin, glucagon
- B. Thyroxine, insulin
- C. Somatostatin, oxytocin
- D. Cortisol, testosterone

Answer: D

27. A person entering an empty room suddenly find a snake right in front on opening the door. Which one of the following is likely to happen in his neuro-hormonal 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



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

- A. Glucagon is secreted by eta 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



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

option

| Source gland | Hermone | Function |
|------------------|-------------|---|
| 1) Antecior | Onytown | Смилстия |
| pituitary | hormone | pituitary uterus muscles during child birth |
| 2) Posterior | Vasopressin | stimulates |
| piturary | | resorption of water in the |
| distal | | tubules in |
| the | | nephron |
| 3) Cospus luteum | Ocstrogen | Supports pregnancy |
| 4) Thyroid | Thyroxine | Regulates |
| | | blood calcium |
| | | level |



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30. Given below is an incomplete table on hormones ,their source and one major effect

of each human body. Identify the option representing correct grouping of hormone its gland effect

| Gland | Secretion | Effect on body | |
|---|-----------|--|--|
| A | Oestrogen | Maintenance of secondary sexual characters | |
| Alpha cells of Islets of Langerhans | В | Raises blood Sugar level | |
| Anterior Pituitary | C | Over secretion leads to gigantism | |
| A | В | C | |
| 1) Ovary | Glucagon | Growth hormone | |
| 2) Placenta | Insulin | Vasopressin | |
| 3) Ovary | Insulin | Calcitonin | |
| 4) Palcenta | Glucagon | Calcitonin | |



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

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

Answer: D



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

| Hormon | ne | Source | Function | |
|-----------------------------|------|--------------|-----------------|--|
| Vasopre | ssin | posterior | increases loss | |
| pituitary | 1 | | of water | |
| | | | through | |
| | | | urine | |
| Norepin | ¢ | adrenal | Increases | |
| phrine | | medulla | heartbeat, rate | |
| | | | of respiration | |
| | | | and alertness | |
| Glucage | n | beta-cells | stimulates | |
| | | of Islets of | glycogenolysis | |
| | | Langerhans | | |
| 4) Prolacting | ı | posterior | regulates | |
| | | pituitary | growth of | |
| | | | mammary | |
| | | | glands and | |
| | | | milk | |
| | | | formation in | |
| | | | females | |
| | | | | |



37. A health disorder that results from the deficiency of thyroxine in adults and characterised by

(i)a low metabolic rate,

(ii)Increase in body weight and

(iii)tendency to retain water in tissues is

A. Simple goitre

B. Myxoedema

C. Cretinism

D. Hypothyroidism



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38. Which one of the following pair 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



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39. The blood calcium 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 resident 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 problems with calcium and phosphorus metalbolism in his body. Which one of the following glands may not be functioning properly?

- A. Parotid
- B. pancreas
- C. Thyroid
- D. Parathyroid

Answer: D

