

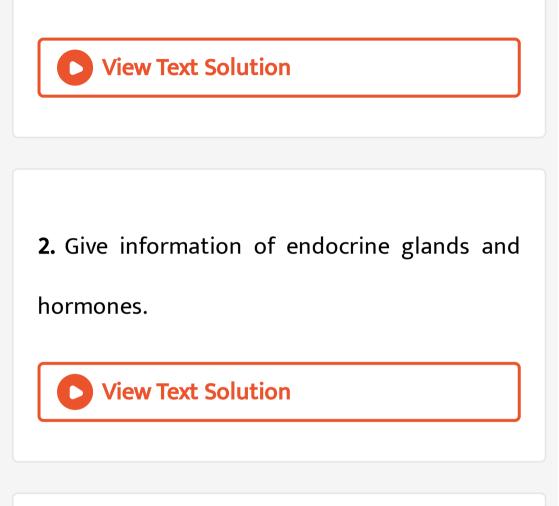
India's Number 1 Education App

BIOLOGY

BOOKS - KUMAR PRAKASHAN KENDRA BIOLOGY (GUJRATI ENGLISH)

CHEMICAL COORDINATION AND INTEGRATION

Section A Exam Oriented Questions Answers From Darpan **1.** State the importance of neural system.



3. Give brief information of location of endocrine glands and name in human.

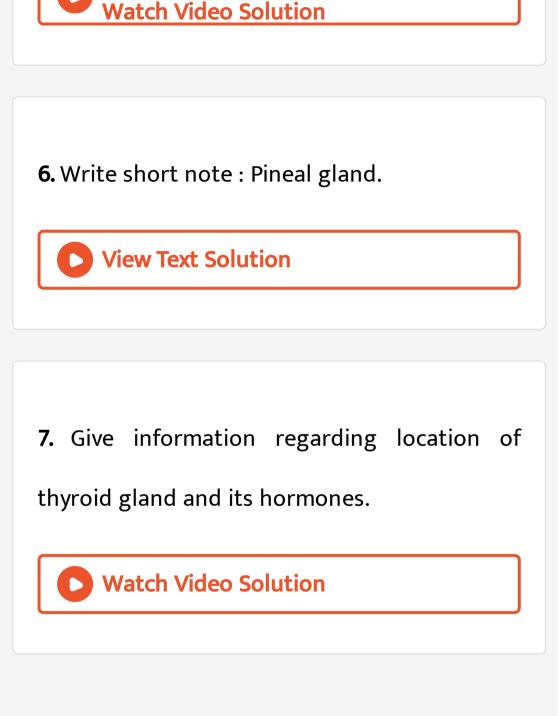


4. Give information of hormones secreted by hypothalamus. State its target / function in the body.

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5. Which type of hormones are secreted by pituitary gland ? Mention their names and target organs.





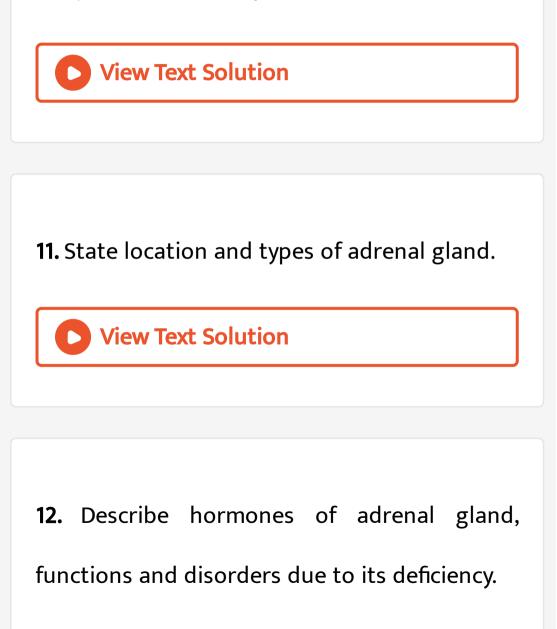
8. Write short note - Disorders / Disease of thyroid gland.
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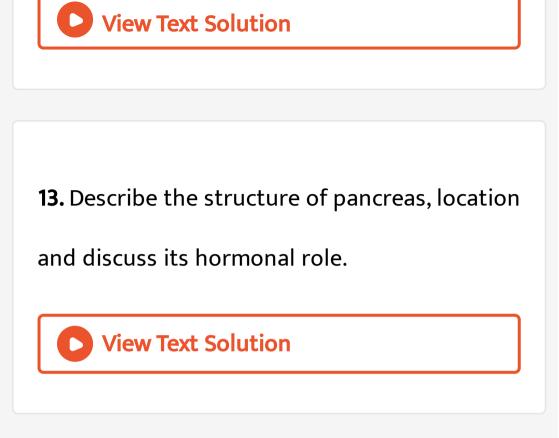
9. Give detailed information for location of gland hormones and physiological effects of parathyroid gland.

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10. Mention location of thymus gland in the

body and state its importance.





14. State the location of the testes. Mention the functions and name of the hormones produced by it.

15. What is endocrine function of overy besides reproductive organ.

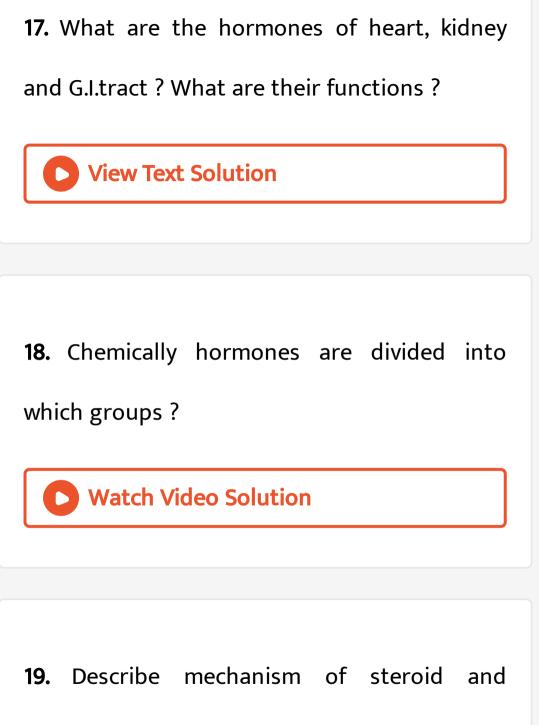
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16. Which hormones are released from ovary ?

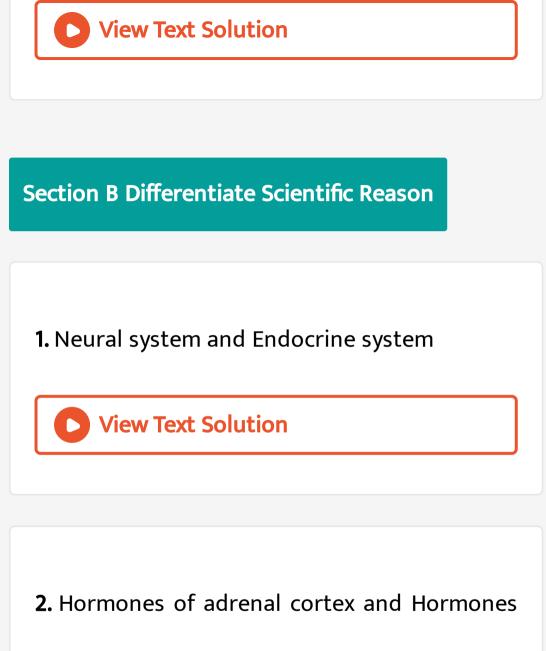
How is secondary sexual characters regulated

by it ?

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peoptide hormone with diagram.



of adrenal medulla.

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3. Thyroid hormones and Parathyroid

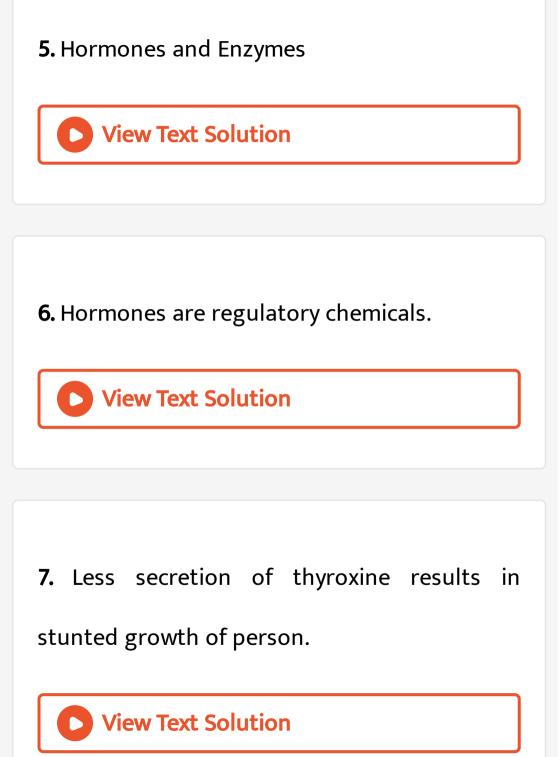
hormones

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4. Hormones of testis and Hormones of

ovaries

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8. Deficiency of insulin results in diabetes mellitus.



9. Give a reason : Pancreas is endocrine as well

as exocrine gland.



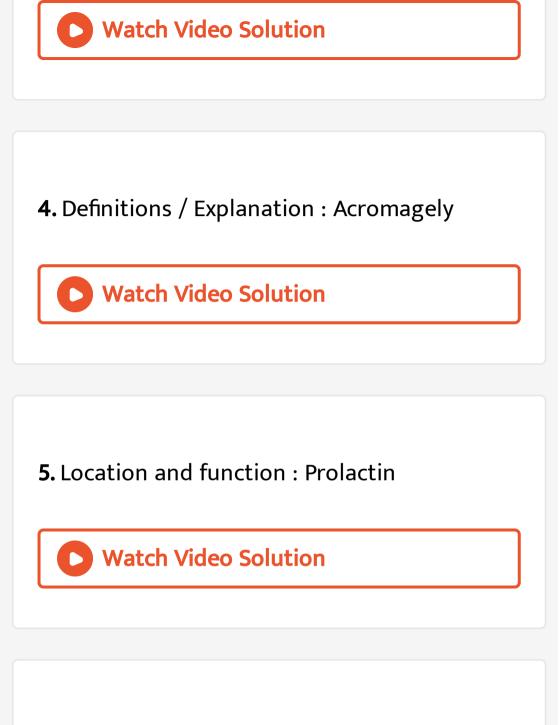




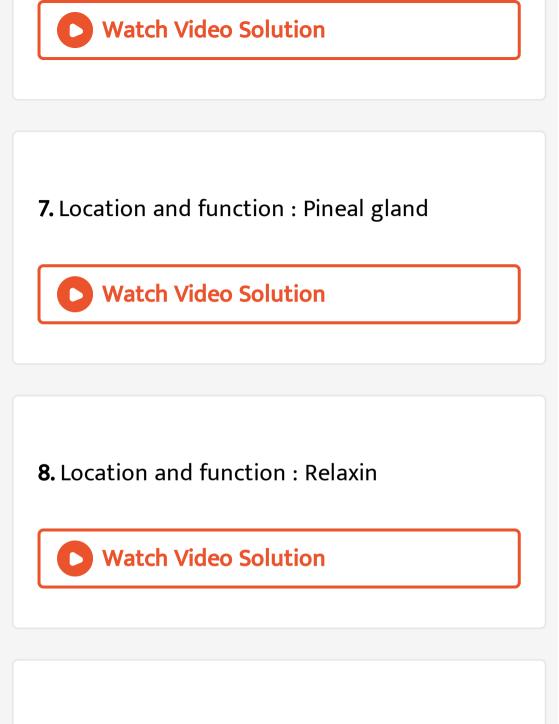
2. Definitions / Explanation : Endocrine glands



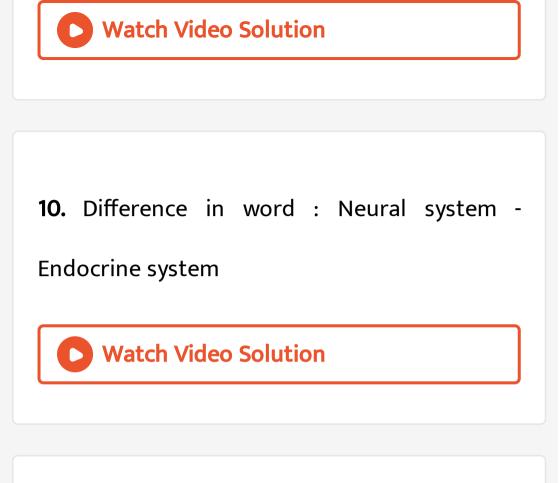
3. Definitions / Explanation : Exocrine glands



6. Location and function : ADH



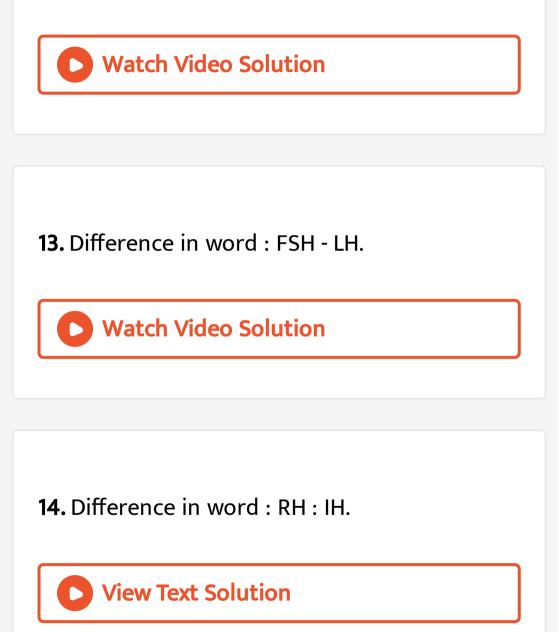
9. Location and function : Thyrocalcitonin



11. Difference in word : Oxytocin - Vasopressin

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12. Difference in word : Dwarfism - Gigantism.



15. Difference in word : Diabetes incipidus -

Dlabetes mellitus.

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16. Difference in word : Testosterone -

Progesterone.



17. Difference in word : Atrial Natriuretic Factor

(ANF) - Erythropoietin.

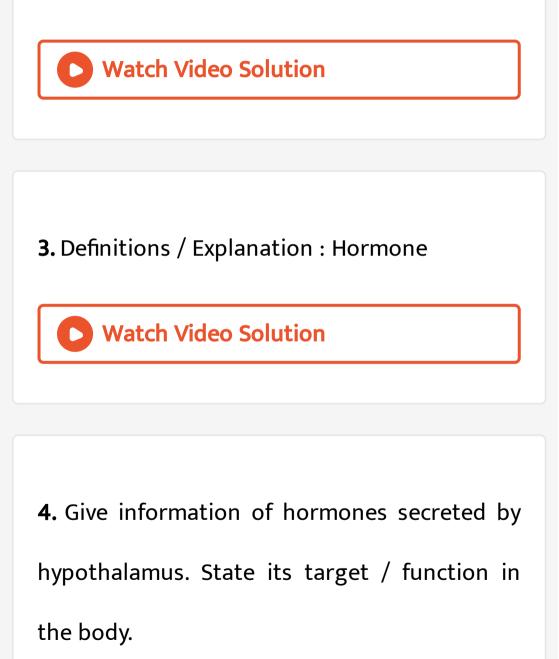


Section D Textual Exercise

1. Definitions / Explanation : Exocrine glands

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2. Definitions / Explanation : Endocrine glands





5. Which type of hormones are secreted by pituitary gland ? Mention their names and target organs.

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6. The hormones secreted by the following :

Thyroid



7. The hormones secreted by the following :
Parathyroid

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8. The hormones secreted by the following :

Adrenal

Watch Video Solution

9. The hormones secreted by the following :

Pancreas

View Text Solution

10. The hormones secreted by the following :

Testis



11. The hormones secreted by the following :

Ovary

View Text Solution

12. The hormones secreted by the following :

Thymus



13. The hormones secreted by the following :

Atrium

View Text Solution

14. The hormones secreted by the following :

Kidney



15. The hormones secreted by the following : GI Tract



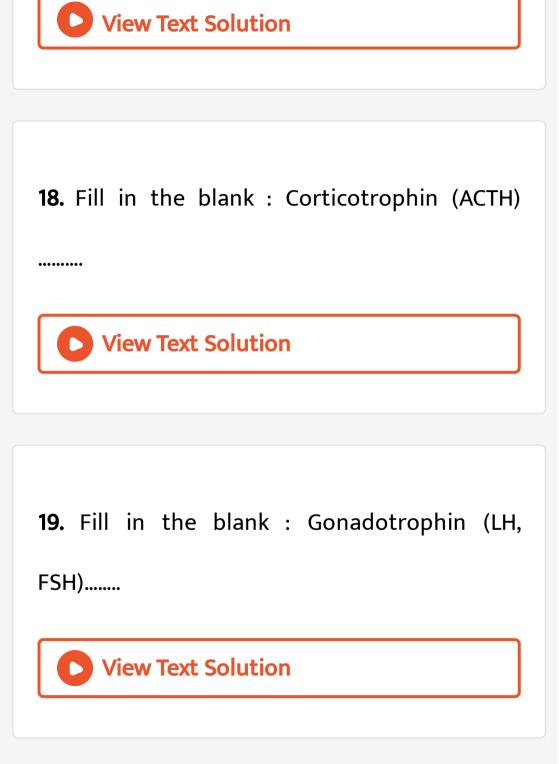
16. Fill in the blank : Hypothalamic Hormones



17. Fill in the blank : Thyrotrophin (TSH)

Г

.....



20. Fill in the blank : Melanotrophin (MSH)......



21. Write short notes on the functions of the following hormones : Parathyroid hormone (PTH)

View Text Solution

22. Write short notes on the functions of the

following hormones : Thyroid hormones

View Text Solution

23. Write short notes on the functions of the

following hormones : Thymosins



24. Write short notes on the functions of the

following hormones : Androgens

View Text Solution

25. Write short notes on the functions of the

following hormones : Estrogens

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26. Write short notes on the functions of the

following hormones : Insulin and Glucagon

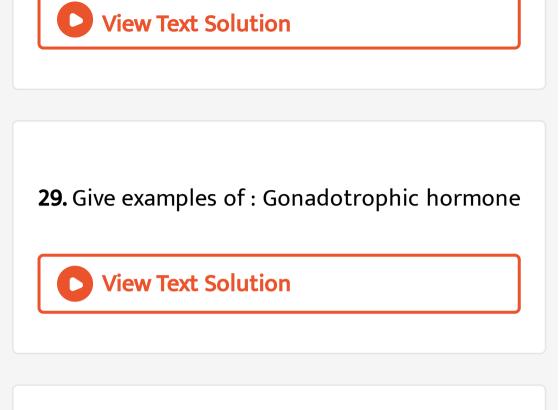
View Text Solution

27. Give examples of : Hyperglycemic hormone

and Hypoglycemic hormone

View Text Solution

28. Give examples of : Hypercalcemic hormone



30. Give examples of : Progestational hormone



31. Give examples of : Blood pressure lowering

hormone

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32. Give examples of : Androgens and

estrogens



33. Which hormnal deficiency is responsible for

the following : Diabetes mellitus



34. Which hormnal deficiency is responsible

for the following : Goitre



35. Which hormnal deficiency is responsible for

the following : Cretinism

View Text Solution

36. Briefly mention the mechanism of action of

FSH.



37. Match the following :

Column-I		Column-II		
	T ₄	(i)	Hypothalamus	
(b)	PTH	(ii)	Thyroid	
(c)	GnRH	(iii)	Pituitary	
(d)	LH	(iv)	Parathyroid	



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Section E Solution Of Ncert Exemplar Multiple Choice Questions

1. Select the right match of endocrine gland and their hormones among the optinons

given below:

Column-I		Column-II	
(A)	Pineal	(1)	Epinepnrine
(B)	Thyroid	(2)	Melatonin
(C)	Ovary	(3)	Estrogen
(D)	Adrenal medulla	(4)	Tetraiodothyronine

A.
$$(A - 4), (B - 2), (C - 1), (D - 3)$$

B. $(A - 2), (B - 4), (C - 1), (D - 3)$
C. $(A - 3), (B - 2), (C - 1), (D - 4)$
D. $(A - 2), (B - 4), (C - 3), (D - 1)$

Answer: D

2. Which of the follwing hormones is not secreted by anterior pituitary ?

A. Growth hormone

B. Follicle stinulating hormone

C. Oxytocin

D. Adrenocorticotrophic hormone

Answer: C

3. 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



4. The steroid responsible for balance of water

and electrolytes in our body is

A. Insulin

B. Melatonin

C. Testosterone

D. Aldosterone

Answer: D





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

Answer: C



6. 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

7. Leydig cells produce a group of hormones

called

A. Androgens

B. Estrogens

C. Aldosterone

D. Gonadotropins

Answer: A

called.....

A. Prolactin

B. Progesterone

C. Aldosterone

D. Testosterone

Answer: B

9. Cortisol is secreted from

A. Pancrease

B. Thyroid

C. Adrenal

D. Thymus

Answer: C



10. A hormone responsible for normal sleep -

wake cycle is

A. Epinephrine

B. Gastrin

C. Melatonin

D. Insulin

Answer: C

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

A. Extra cellular matrix

B. Blood

C. Plasma membrene

D. Nucleus

Answer: C



12. Match the following columns.

Column - I		Column - II		
(a)	Epinephrine	(1)	Increase in muscle growth.	
(b)	Testosterone	(2)	Decrease in blood pressure.	
(c)	Glucagon	(3)	Breakdown in liver glycogen.	
(d)	Atrial natriuretic	(4)	Increase heart beat.	
	factor	_		

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

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

Answer: B



13. Which of the following do not play any role

in calcium balance in the human body?

A. Vitamin D

B. Parathyroid hormone

C. Thyrocalcitonin

D. Thymosin

Answer: D



14. All the following organs in mammals does not one consists of a central 'medullary' region surrounded by a cortical region.

A. Ovary

B. Adrenal

C. Liver

D. Kidney







15. Which of the following conditions is not

linked to deficiency of thyroid hormone ?

A. Cretinism

B. Goitre

C. Myxedema

D. Exophthalmosis

Answer: C

Section E Solution Of Ncert Exemplar Very Short Answer Questions

 There are many endocrine glands in human body. Name the glands which is absent in male and the one absent in female.

2. Which of the two adrenocortical layers, zona

glomerulose and zona reticularis lies outside

enveloping the other ?



3. Which is erythropoiesis ? Which hormone

stimulate it ?



4. Name the only hormone secreted by pars

intermedia of the pituitary gland.

View Text Solution

5. Name the endocrine gland that produces calcitonin and mention the role played by this hormone.

6. Name the hormone that helps in cellmediated immunity.

7. What is the role of second messenger in the

mechanism of protein hormone action ?

8. True of false : Gastrointestinal tract, kidney

and heart also produce hormones

View Text Solution

9. True of false : Pars distalis produces six trophic hormones.



10. True of false : B-lymphocytes provide cell -

mediated immunity.

View Text Solution

11. True of false : Insulin resisitance results in a

disease called diabetes mellitus.



12. A patient complains of constant thirst, excessive passing of urine and low blood pressure, When the doctor checked the patients' blood glucose and blood insulin level, the level were normal or slightly low. Thw doctor diagnosed the condition as diabetes insupidus. But he decided to measure one more hormone in patients blood. Which hormone does the doctor intend to measure?



13. Correct the following statements by replacing the term underlined. : Insulin is a steroid hormone.

View Text Solution

14. Correct the following statements by replacing the term underlined. : TSH is secreted from the corpus luteum.

15. Correct the following statements byreplacing the term underlined. :Tetraiodothyronine is an emergency hormone.

View Text Solution

16. Correct the following statements by replacing the term underlined. : The pineal gland is located on the anterior part of the kidney.

17. Match the following columns.

Column - I		Column - II	
(A)	Oxytocin	(1)	Amino acid derivaties
(B)	Epinephrine	(2)	Steroid
(C)	Progesterone	(3)	Protein
(D)	Growth hormone	(4)	Peptide

View Text Solution

Section E Solution Of Ncert Exemplar Short Answer Questions

1. What is the role-played by luteininzing hormones in males and females respectively ?
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2. What is the role of second messenger in

hormone action ?



3. On an educational trip to Uttaranchal, Ketki and her friends observe that many local people were having swollen necks. Please help Ketki and her fridnds to find out the solutions to the following questions. Which probable disease are these people

suffering from ?



4. On an educational trip to Uttaranchal, Ketki and her friends observe that many local people were having swollen necks. Please help Ketki and her fridnds to find out the solutions to the following questions.

How is it caused ?



5. On an educational trip to Uttaranchal, Ketki and her friends observe that many local people were having swollen necks. Please help Ketki and her fridnds to find out the solutions to the following questions. What effect does this condition have on pregnancy?

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6. George comes on a vcation to India from U.S. The long journey disturbs his biological system and he suffers from jet lag. What is the cause of his dicomfort ?





7. Inflammatory responses can be controlled by a certain steroid. Name the steroid, its source and also its other important functions.

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8. Old people have weak immune system. What

could be the reason ?

9. What are the effects of hypothyroidism (observed dueing pregnancy) on the development and maturation of a growing baby ?

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10. Mention the difference between

hypothyroidism and hyperthyroidism.

1. Amilkman is very upset one morning as his cow refuses to give any milk. The milkman's wife gets the calf from the shed. On feeding by the calf, the cow gace sufficient milk. Describe the role of endocrine gland and pathway associated with this response ?



2. A sample of urine was diagnosed to contain high content of glucose and ketone bodies.Based on this observation, answer the following :

Which endocrine gland and hormone is

related to this condition ?

View Text Solution

3. A sample of urine was diagnosed to contain high content of glucose and ketone bodies.

Based on this observation, answer the

following :

Name the cells on which this hormone acts.

View Text Solution

4. A sample of urine was diagnosed to contain high content of glucose and ketone bodies.Based on this observation, answer the following :

What is the condition called and how can it be

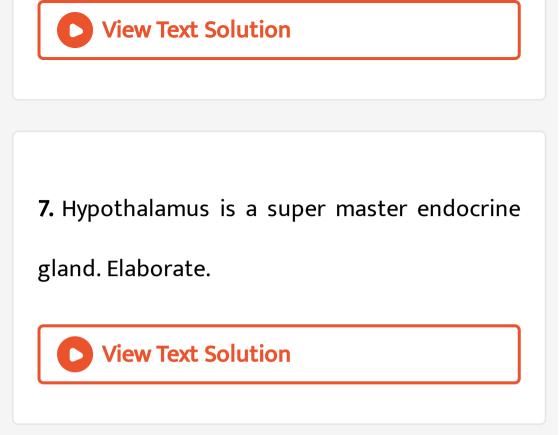
rectified ?



5. Calcium plays a vary important role in the formation of bones. Write on the role of endocrine glands and hormones responsible for maintaining calcium homeostasis.



6. Illustrate the differences between the mechanism of action of a protein and a steroid hormone.



Questions From Module Important Mcq For Neet

1. Which endocrine gland stores its secretions

is intercellular space before releasing into

blood?

A. Adrenal

B. Pancreas

C. Testis

D. Thyroid

Answer: D



2. Which pair is correct ?

A. Thyroxine - Tetanus

B. Insulin - Diabetes incipedus

C. Adrenaline - Tetany

D. Parathormone - Tetany

Answer: D

View Text Solution

3. Which hormone regulates 24 hour cycle and

controls sleep and wakefulness ?

A. Adrenalin

B. Melationin

C. Calcitonin

D. Prolactin

Answer: B



4. Does not function as secondary messenger.

A. Na

B. C - AMP

C. C - GMP

D. Calcium

Answer: A::D



5. Which gland inactivated at old age ?

A. Adrenal

B. Pineal

C. Thymus

D. Pituitary

Answer: C

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Objective Section Multiple Choice Questions

1. Which organ is stimulated by secreten ?

A. Lungs

B. Liver

C. Pancreas

D. Gastric glands

Answer: D

View Text Solution

2. Which is not a steroid hormone ?

A. Aldosterone

B. Androgen

C. Estrogen

D. Thyroxine

Answer: D

View Text Solution

3. Anterior pituitary and hypothalamus is connected through

A. Hepatic portal vein

B. Renal portal vein

C. Hypothalamo hypophyseal axis

D. All of these

Answer: C

View Text Solution

4. Development of mammary gland and secretion of milk in females is by

B. PH

C. TSH

D. FSH

Answer: B

View Text Solution

5. Inhibits the secretion of hormones of anterior pituitary gland

B. FSHRH

C. GHRIH

D. GHRH

Answer: C

View Text Solution

6. Which hormone regulates the development, maturation and functions of male reproductive system.

A. Androgens

B. LTH

C. FSH

D. TSH

Answer: A



7. Absence of causes Diabetes inspidus.

A. Oxytocin

B. ADH

C. Prolactin

D. Testosterone

Answer: B

View Text Solution

8. Hormone regulating 24-hour (diuranl)

rhythm.

B. Prolaction

C. Melatonn

D. Testosterone

Answer: C

View Text Solution

9. Deficiency results in hypothyroidism and enlargement of thyroid gland, commonly called as goitre.

A. Vitamin

B. Protein

C. lodine

D. Lipids

Answer: C

View Text Solution

10. Pragnancy hormone is

A. Estrogen and progesterone

B. Androgen

C. Progesterne

D. Gastrin

Answer: C

View Text Solution

11. Secretion of which gland regulates oxidation and ATP formation.

A. Somatotropic hormone

B. Pituitary gland

C. Thyroid

D. Adrenaline

Answer: C

View Text Solution

12. Hormone acts on bones and stimulates the

process of bone resorption

A. PTH

B. TCT

C. Thymosin

D. Melatonin

Answer: A

View Text Solution

13. Which hormone increases Ca^{+2} absorption form digested food and increases Ca^{++} level in blood ?

A. Thymosin

B. PTH

C. Thyroxine

D. TCT

Answer: B



14. Hormone playing major role in differentiation of T-lymphocytes

A. Thyroxine

- B. Thymosine
- C. PTH
- D. Thyroid gland

Answer: B



15. Hormones including in the category of

catecholamines are

A. Prollactin

- B. Adrenaline nor adrenaline
- C. Adrenal
- D. Mineralcorticoid

Answer: B



16. Hormone regulating the balance of water

and electrolytes in our body

- A. Epinephrine
- B. nor epinephrine
- C. Adrenal
- D. Mineralcorticoids

Answer: D



17. A : Hypothalamus is made up of neuron.

R : Pineal hormone secreted from

hypothalamus.

A. A and R both are correct and R is correct

explanation of A.

B.A and R are correct but R is not

explanation of A.

C. A is correct and R is false.

D. A and R are false.

Answer: B

View Text Solution

18. A : Hypothalamus and adenohyapophysis in connected through hypthalahyphoseal axis
R : Hypothalamus secretes the releasing hormones the inhibiting hormones.

A. A and R both are correct and R is correct

explanation of A.

B.A and R are correct but R is not

explanation of A.

C. A is correct and R is false.

D. A and R are false.





- **19.** A : Our body secretes adrenaline in intense cold.
- R : Adrenaline reise metabolic rate.
 - A. A and R both are correct and R is correct

explanation of A.

B.A and R are correct but R is not

explanation of A.

C. A is correct and R is false.

D. A and R are false.

Answer: A



20. A : Glucagon is a hypoglycemic hormone.

R : It increases the utilization of glucose in tissue.

A. A and R both are correct and R is correct

explanation of A.

B.A and R are correct but R is not

explanation of A.

C. A is correct and R is false.

D. A and R are false.

Answer: D

View Text Solution

21. A : Hormone calcitonin has antagonistic effect to that of parathormone.

R : Calcitonin decreases blood Ca^{++} level while PTH increases blood Ca^{++} level.

A. A and R both are correct and R is correct

explanation of A.

B.A and R are correct but R is not

explanation of A.

C. A is correct and R is false.

D. A and R are false.

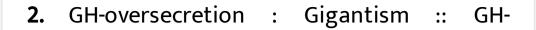


Objective Section Analogy Type Questions

1. Hyperglycemia : Diabetes mellitus :: ADH :



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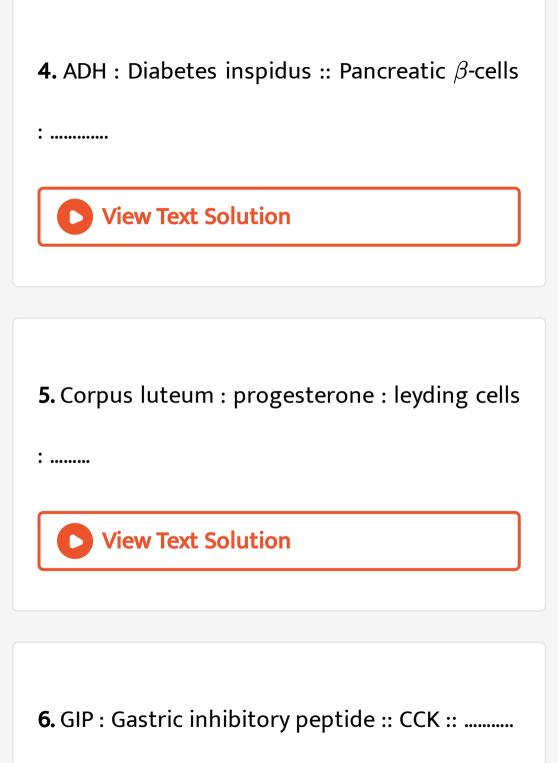
Hyposcretion :

View Text Solution

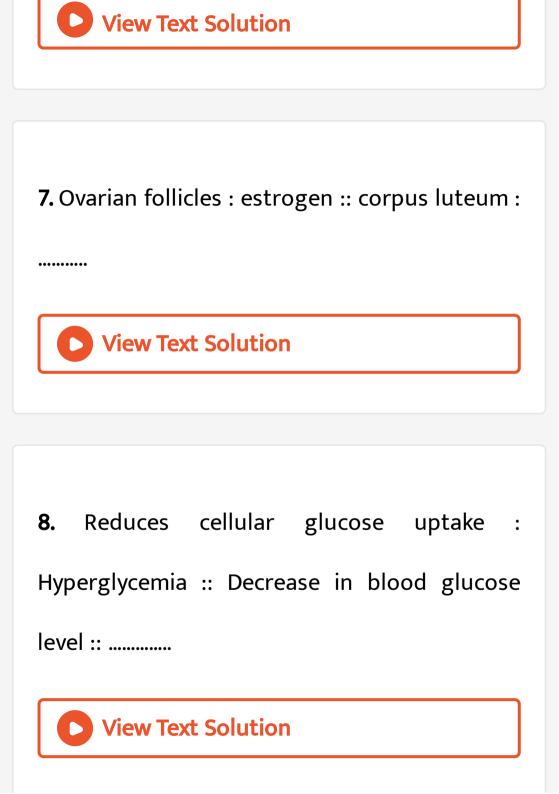
3. Pineal gland : Melatonin :: Somatostatin :

• • • • • • • • • • • • • • •





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Objective Section True Or False

1. Somatostatin from hypothalamus inhibits

the release of growth hormone from pituitary.

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2. Hypothalamus forms upper part of

diencephalon of forebrain.

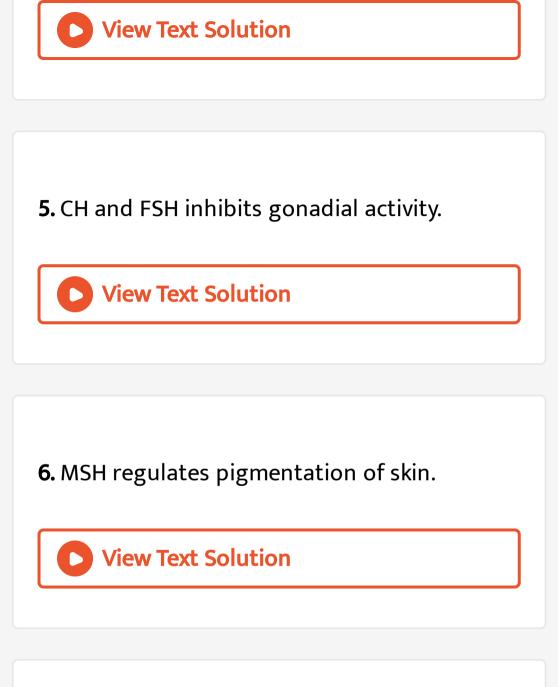


3. Anterior pituitary gland can also be called as

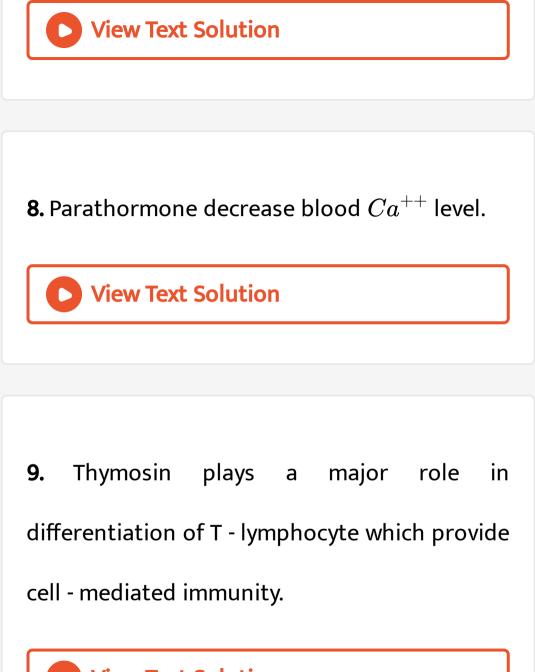
neurohypophysis.

View Text Solution

4. Deficiency of Iodine in our diet results in hypothyroidism.



7. ADH can also be called as vasopressin.



View Text Solution

10. Under production of hormones by adrenal

cortex can cause addison's disease.

	View Tex	t Solution	
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11. Glucagon from Pancreatic cell decreass

blood glucose level.



12. Leydig cells in intertubular spaces secretes

esterogen.

View Text Solution

13. After ovulation, the ruptured follicle is converted into structure called corpur luteum which secretes progesterone.



14. Atrial wall of our heart secretes ANF.



15. The juxtaglomerular cells of kidney produce

erythropoietin which inhibits erythropoiesis

(formation of RBC)



Objective Section Pick Up The Correct Option

 Hormones acting as intercellular messengers and are produced in trace amounts are nutrient / non-nutrient.



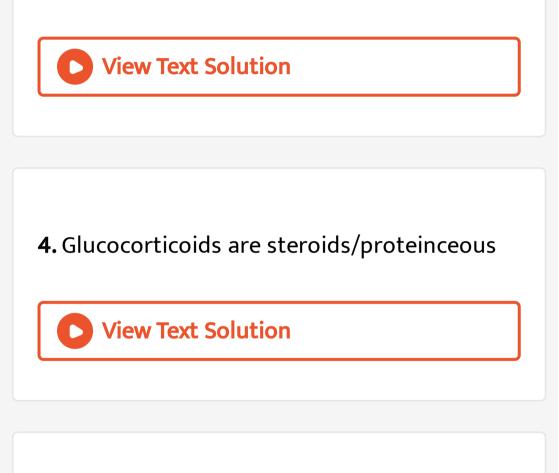
2. Posterior pituitary gland secretes

oxytocin/prolactin.

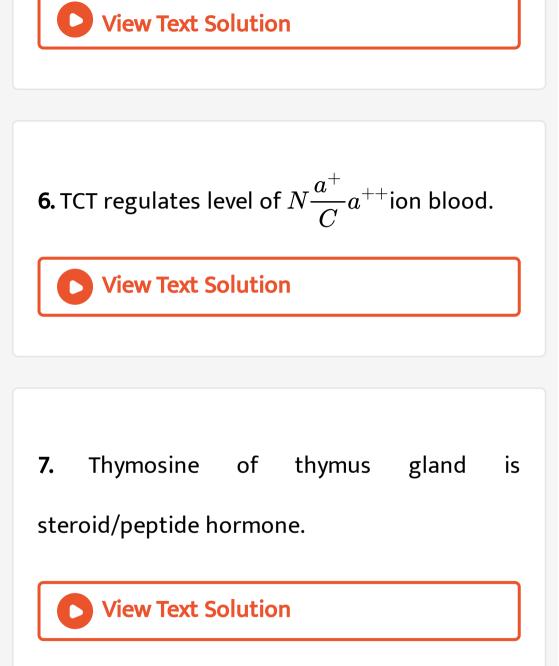


3. Under secretion of GH causes giangtism/low

secretion results in stunted groth.



5. In females, LH induces/inhibits rupting Graafian follicles to cause ovulation.



8. The hormones of adrenal medulla are generally steroids / catecholamines.
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9. Pancreas α -cell secreted glucagon/Insulin

hormone.



Objective Section Fill In The Blanks

 Hormones produce their effects on target tissues by binding to specific proteins called......

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2. acts on gastric glands and stimulates

secretion of HCI.

View Text Solution

3. From hypothalamus inhibits the releas

of growth hormone from pituitary.

View Text Solution

4. Glucagon acts mainly on liver cells and Glycogenolysis resulting in an

increased blood gugar.

View Text Solution

5. Glucocorticoids particularly cortisol,

produces Reactions and suppresses the

immune response.



6. Cortisol The RBC production.



