

BIOLOGY

BOOKS - FULL MARKS BIOLOGY (TAMIL ENGLISH)

PLANT AND ANIMAL HORMONES

Textual Evalution Solved Choose The Correct Answer

1. Gibberellins cause

A. Shortening of genetically tall plants		
B.		
C.		
D.		
Answer:		
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2. The hormone which has positive effect on apical dominance is		

- A. Cytokinin
- B. Gibberellins
- C. Abssisic acid
- D. Auxins

Answer:



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3. Which one of the following hormones is naturally not found in plants:

A. 2, 4-D
В.
C.
D.
Answer: Watch Video Solution
4. Avena coleoptile test was conducted by
A. Darwin

R	
_	

C

D.

Answer:



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5. To increase the sugar production in sugarcanes they are sprayed with

A. Auxin

B.
C.
D.
Answer:
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6. LH is secreted by
A. Adrenal gland

Β.

C

D.

Answer:



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7. Indentify the exocrine gland

A. Pituitary gland

В.

C.

D	
	D

Answer:



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8.gland is both exocrine and endocrine.

A. Pancreas

В.

C.

D.

Answer: Watch Video Solution 9. Which one is referred as "Master Gland"? A. Pineal gland B. C. D. **Answer:**



Textual Evalution Solved Fill In The Blanks

1. ____ causes cell elogation,apical dominance and prevent abscission.



2.is a gaseous hormone involved in abscission of organs and acceleration of fruit

ripening		
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3causes stomatal closure.		
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4. Gibberelins induce stem elongation in plants.		
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5. The hormone which has negative effect on apical dominance is......



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6. Calcium metabolism of the body is controlled by



7. In the islets of Langerhans, beta cells secrete



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8. Fill in the blanks:

- (i) causes stomatal closure.
- (ii) The growth and functions of thyroid gland is controlled by .

9. Decreased secretion of thyroid hormones in the children leads to.........



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Textual Evalution Solved Match The Following

1. Match the Column I with Columns II and III

Column I	Column II	Column III
Auxin	Gibberella fujikuroi	Abscission
Ethylene	Coconut milk	Internodal elongation
Abscisic acid	Coleoptile tip	Apical dominance
Cytokinin	Chloroplast	Ripening
Gibberellins	Fruits	Cell division



2. Match the following hormones with their deficiency states:

	Hormones	Disorders
1.	Thyroxine	(a) Acromegaly
2.	Insulin	(b) Tetany
3.	Parathormone	(c) Simple goitre
4.	Growth hormone	(d) Diabetes insipidus
5.	ADH	(c) Diabetes mellitus



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Textual Evalution Solved State Wether True Or False If False Write The Correct Statement

1. A plant hormone concerned with stimulation of cell division and promotion of nutrient mobilization is eytokinin.



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2. Gibberellins cause parthenocarpy in tomato



3. Ethylene retards senescence of leaves, flowers and fruits.



4. Exopthalmic goiter is due to the over secretion of thyroxine.



5. Pituitary gland is divided into four lobes.



6. Estrogen is secreted by corpus luteum.



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Textual Evalution Solved Assertion And Reasoning

1. Assertion: Application of cytokinin to marketed vegetables can keep them fresh for several days.

Reason: Cytokinins delay senescence of leaves and other organs by mobilisation of nutrients

A. If both A and R are true and R is correct explanation of A

В.

C.

D.

Answer:



2. Assertion (A): Pituitary gland is referred as "Master gland.

Reason (R): It controls the functioning of other endocrine glands.



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3. Asseration (A): Diabetes mellitus increases the blood sugar levels.Reasons(R): Insulin decreases the blood sugar levels.



Textual Evalution Solved Answer In A Word Or Sentence

1. Which hormone promotes the production of male flowers in Cucurbits?



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2. Write the name of a synthetic auxin.



3. Which hormone induces parthenocarpy in tomatoes?



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4. What is the hormone responsible for the secretion of milk in female after child birth?



5. Name the hormones which regulates water and mineral metabolism in man.



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6. Which hormone is seereted during emergency situation in man?



7. Which gland secretes digestive enzymes and hormones?



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8. Name the endocrine gland associated with kidneys



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Textual Evalution Solved Short Answer Questions

1. What are synthetic auxins? Give examples.



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2. What is bolting? How can it be induced artificially?



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3. Bring out any two physiological activities of abscisic acid (ABA).

4. What will you do to prevent leaf fall and fruit drop in plant? Support your answer with reason.



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5. What are chemical messengers?



6. Write the differences between endocrine and exocrine gland.



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7. What is the role of parathorone?



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8. What are the hormones secreted by posterior lobe of the pituitary gland? Mention the tissues on which they exert their effect



9. Why are thyroid hormones referred as personality hormone?



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10. (i) Which hormone requires iodine for its formation? What will happen if intake of iodine in our diet is low?

(ii) What is the importance of raivater

(iii) What is colosturm? How is milk production hormonally regulated?



harvesting?

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Textual Evalution Solved Long Answer Questions

1. (a) Name the gaseous plant hormone.

Describe its three different actions in plants.

(b) Which hormone is known as stress hormone in plants? Why?

2. Describe and experiment which demonstrates that growth stimulating hormone is produced at the tip of coleoptile.



3. Write the physiological effects of gibberellins.



4. Where are estrogens produced? What is the role of estrogens in the human body?



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5. (i) What are the conditions which occur due to lack of ADH and insulin? How are the conditions different from one another?(ii) Write the events involved in the sexual reproduction of a flowering plant. Discuss the first event and write the types.

Textual Evalution Solved High Order Thinking Skills Hots

- 1. What would be expected to happen if
- a. Gibberellin is applied to rice seedlings.
- b. A rotten fruit gets mixed with unripe fruits.
- c. When cytokinin is not added to culture



- 2. A plant hormone was first discovered in Japan when rice plant were sufferring from Bakanae disease caused by Gibberella fujikoroi. Based on this information answer the following questions.
- (i) Identify the hormone involved in this process.
- (ii) Which property of this hormone causes the disease?
- (iii) Give two functions of this hormone.



3. Senthil has high blood pressure, protruded eyeball and an increased body temperature. Name the endocrine gland involved and hormone secretion responsible for this condition



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4. Sanjay is sitting in the exam hall. Before the start of the exam, he sweats a lot, with

increased rate of heart beat. Why does this condition occur?



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5. Susan's father feels very tired and frequently urinates. After clinical diagnosis he was advised to take an injection daily to maintain his blood glucose level. What would be the possible cause for this? Suggest preventive measures.



Textbook Activities Solved

1. Place two or three unripe tomatoes in a brown paper bag with a ripe bananas and roll the top closed. In another bag place two or three unripe tomatoes only and roll the top closed, Observe what happens to the tomatoes? Why



Additional Questions Fill In The Blanks

1. The chemical substances produced by plants are called......



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2. The two lobes of thyroid glands are connected by means of a narrow band of tissue called



3. The chief cells of parathyroid glands are......



4. The other name for adrenal gland is



5. The hormones secreted by the adrenal cortex are.......

6. During water stress and drought conditions......causes stomatal closure.



7. Glucagon helps the break down of...... to glucose in the liver.



8. The adrenal medulla is composed ofcells.



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9. The male sex hormone..... is responsible for the development of secondary sexual characters.



10.is a gaseous plant hormone, mainly concerned with maturation and ripening of fruits



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11. The other name for pituitary gland is



12. The glandular follicles of thyroid gland are

filled with colloid material called......



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Additional Questions Match The Following

- 1. Morphogenesis
- 2. Bakanae disease
- Tetany
- 4. Testosterone
- Adrenal medulla
- 6. Thymosin
- Estrogen

- (a) Chromaffin cells
- (b) Male sex hormone
- (c) Thymus
- (d) Gibberella Fujikuroi
- (e) Female sex hormone
- (f) Callus in tissue culture
- (g) Muscle spasm



2. Match the following endocrine glands with

their location

Pituitary gland – (a) Female sex gland
 Thyroid gland – (b) Male sex gland

3. Parathyroid – (c) Above the kidney

4. Islets of Langerhans -(d) Posterior surface of thyroid lobe

5. Adrenal gland – (e) Upper part of chest, lower end of trachea

6. Testes -(f) Base of mid brain

7. Ovary – (g) Pancreas 8. Thymus – (h) Trachea



Additional Questions Choose The Odd One Out

1. Auxins, Parthenocarpy, apical dominance, Parathormone.



2. Senescence, Dormancy, Estrogen, abscission.



3. Glucagon, Endocrine, Exocrine, Gibberellins.



4. Norepinephrine, Isthmus, tyrosine, thyroglobulin.



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5. Gonads, Thyroid, Cytokinin, Thymus



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Additional Questions Write True Or False For The Following Statements Write The Correct

Statement For False

1. Auxins, cytokinins and gibberellins inhibit plant growth, while abscisic acid and Ethylene promote plant growth.



2. Glucagon helps in the breakdown of glycogen to glucose in the liver



3. Thymus is partly an endocrine gland and partly a lymphoid gland.



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4. Leydig cells form the cells of female. Gonads located in the pelvic cavity.



5. Cretinism is caused due to increased secretion of the thyroid hormones in children.



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6. Cytokinin promote the growth of lateral buds even in the presence of apical buds



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Additional Questions Answer The Following In A Word Or With A Sentence

1. Where are Auxins produced?



2. Name the types of Auxins.



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3. What is Richmond Lang effect?



4. When does the maximum synthesis of ethylene occur?



5. What are the secretions of alpha and beta cells of Islets of Langerhans?



6. Name the two distinct parts of adrenal.



7. Name the two types of sex glands.



8. What are target organs?



9. Name the three layers of adrenal cortex.



10. What is Endocrinology?



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Additional Questions Answer The Following **Briefly**

1. Name the types of plant hormones.



2. Write the physiological effect of Auxin.



3. What are Ductless glands? Why are they called so?



4. Name the endocrine glands present in human and other vertebrates.



5. Write the physiological effect of Cytokinins.



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6. Which endocrine gland is called "Master gland"? Why?



7. What are the functions of thyroid hormones? Write any three points.



8. Write the physiological effects of gibberellins.



9. Explain any three functions of Testosterone.



10. Write a paragraph on Thymus gland?



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Additional Questions Draw Labelled Diagram

1. Draw a labelled diagram for the Hormonal interaction in plant growth and development.



2. Draw a labelled diagram for the Pancreas



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3. Draw a labelled diagram for the Adrenal gland



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Additional Questions Answer The Following In Detail

1. With a neat labelled diagram, explain the pituitary gland and the types of hormones.



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2. With a neat labelled diagram, explain the pituitary gland and the types of hormones.

