



BIOLOGY

BOOKS - KUMAR PRAKASHAN

CONTROL AND COORDINATION

Questions And Answers

1. What is a movement ? What are the different purposes for which movements are seen in organisms ? Give suitable examples.



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2. Why are there controlled movements in living organisms ?



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3. How do hot object stimulates reflex action?



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4. What are receptors ? State the example, location and function of different receptors in human body.



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5. Explain how nervous impulses travel in the body.



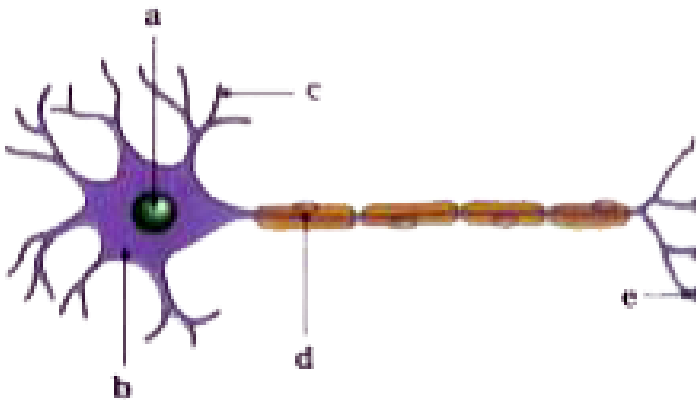
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6. Identify the parts of a neuron in a diagram :

(1) where information is acquired,

(2) through which information travels as electrical impulse, and

(3) where this impulse in must be converted into a chemical signal for onward transmission.



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7. To detect the taste bud (gustatory receptor) and its function.

→ Put some sugar on your tongue in the mouth.

→ Block your nose by pressing it between your thumb and index finger.

→ Now eat sugar again.

→ While eating lunch, block your nose in the same way and notice if you can fully appreciate the taste of food you are eating.

How does the sugar taste ?



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8. To detect the taste bud (gustatory receptor) and its function.

→ Put some sugar on your tongue in the mouth.

→ Block your nose by pressing it between your thumb and index finger.

→ Now eat sugar again.

→ While eating lunch, block your nose in the same way and notice if you can fully appreciate the taste of food you are eating.

Is there any difference in the taste of sugar while you block your nose ?



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9. To detect the taste bud (gustatory receptor) and its function.

→ Put some sugar on your tongue in the mouth.

→ Block your nose by pressing it between your thumb and index finger.

→ Now eat sugar again.

→ While eating lunch, block your nose in the same way and notice if you can fully appreciate the taste of food you are eating.

Is there a difference in how sugar and food taste if your nose is blocked ? If so, why might be happening ?



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10. To detect the taste bud (gustatory receptor) and its function.

→ Put some sugar on your tongue in the

mouth.

→ Block your nose by pressing it between your thumb and index finger.

→ Now eat sugar again.

→ While eating lunch, block your nose in the same way and notice if you can fully appreciate the taste of food you are eating.

Do you come across a similar situation when you have a cold ?



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11. What is the meaning of reflex actions ? Give examples.



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12. Explain why we give slow response compared to reflex in any activity involved thinking.



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13. Explain reflex arc. Explain spinal reflex.



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14. Explain how is hand pulled away from the hot object reflexly.



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15. Why reflex arcs have been evolved in animals ? Explain.



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16. How does the design of the body solve a problem when immediate response is needed ?



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17. State the organization of human nervous system and general functions of it.



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18. Describe human brain with specific functions of its different parts.



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19. Explain : Human brain



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20. How central nervous system protected?





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21. What are the functions of nervous tissue ?

How muscle tissue respond to nervous impulses ?



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22. Write short notes : (1) Fore-brain (2)

Movement of voluntary muscles



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23. What is the difference between a reflex action and walking ?



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24. What happens at the synapse between two neurons ?



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25. Which part of the brain maintains posture and equilibrium of the body ?



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26. How do we detect the smell of an agarbatti (incense stick) ?



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27. What is the role of the brain in reflex action ?



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28. State the types of movement in plants with examples.



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29. How does the sensitive plant detect the touch and how do the leaves move in response ?



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30. How is coordination in plants different from coordination in animals ?



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31. Explain the movement in pea plant due to growth.



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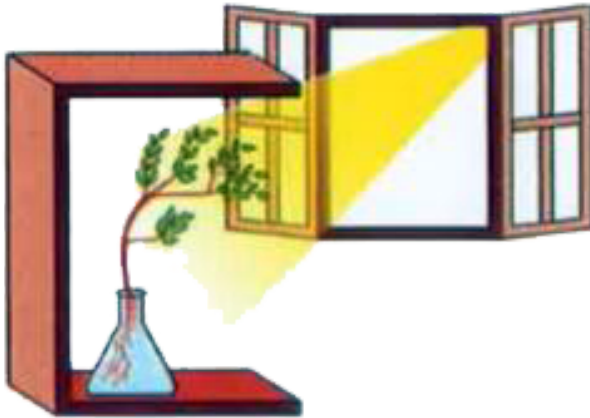
32. To observe the response of plant parts to light OR To study phototropism in plants.

Materials : Conical flask, wire mesh, cardboard box open from one side, water, two- three freshly germinated bean seeds.

Procedure :

- Fill a conical flask with water.
- Cover the neck of the flask with a wire mesh.
- Keep two-three freshly germinated bean seeds on the wire mesh.
- Take a cardboard box which is open from one side.
- Keep the flask in the box in such a manner that the open side of the box faces light coming from a window.
- Observe after two or three days and note down your observation.
- Now turn the flask and leave it

undisturbed in this condition for a few days and then observe.



Response of the plant to the direction of light

Observation : In the initial position of flask, the shoot bends towards light and roots turn away from light.

→ After turning the flask, position of shoot and roots change, i.e., shoot goes away from

light and roots turn towards light but after a few days shoot again shows bending towards light and roots move away from light.

Have the old parts of the shoot and root changed direction ?



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33. To observe the response of plant parts to light OR To study phototropism in plants.

Materials : Conical flask, wire mesh, cardboard box open from one side, water, two- three

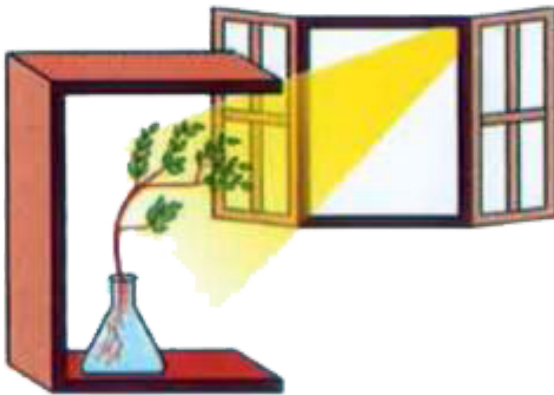
freshly germinated bean seeds.

Procedure :

- Fill a conical flask with water.
- Cover the neck of the flask with a wire mesh.
- Keep two-three freshly germinated bean seeds on the wire mesh.
- Take a cardboard box which is open from one side.
- Keep the flask in the box in such a manner that the open side of the box faces light coming from a window.
- Observe after two or three days and note

down your observation.

→ Now turn the flask and leave it undisturbed in this condition for a few days and then observe.



**Response of the plant
to the direction of light**

Observation : In the initial position of flask, the shoot bends towards light and roots turn away from light.

→ After turning the flask, position of shoot

and roots change, i.e., shoot goes away from light and roots turn towards light but after a few days shoot again shows bending towards light and roots move away from light.

Are there differences in the direction of the new growth ?



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34. To observe the response of plant parts to light OR To study phototropism in plants.

Materials : Conical flask, wire mesh, cardboard

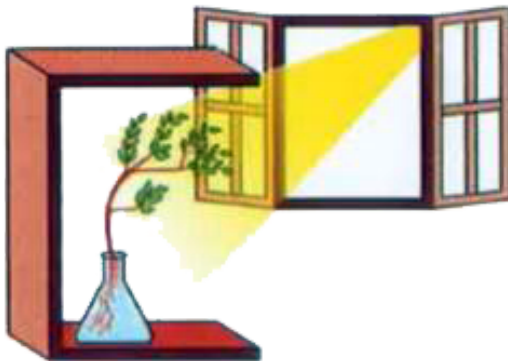
box open from one side, water, two- three freshly germinated bean seeds.

Procedure :

- Fill a conical flask with water.
- Cover the neck of the flask with a wire mesh.
- Keep two-three freshly germinated bean seeds on the wire mesh.
- Take a cardboard box which is open from one side.
- Keep the flask in the box in such a manner that the open side of the box faces light coming from a window.

→ Observe after two or three days and note down your observation.

→ Now turn the flask and leave it undisturbed in this condition for a few days and then observe.



**Response of the plant
to the direction of light]**

Observation : In the initial position of flask, the shoot bends towards light and roots turn away from light.

→ After turning the flask, position of shoot and roots change, i.e., shoot goes away from light and roots turn towards light but after a few days shoot again shows bending towards light and roots move away from light.

What can we conclude from this activity ?



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35. What is meant by 'Tropisms'? Explain with an example.



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36. Explain the statement : Electrical impulses are an excellent means for coordination with its own limitations.



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37. Explain in short : Chemical communication or hormonal coordination.



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38. Describe plant hormones.



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39. State the names of plant hormones and their effects.



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40. What are plant hormones ?



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41. How is the movement of leaves of the sensitive plant different from the movement of a shoot towards light ?



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42. Give an example of a plant hormone that promotes growth.



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43. How do auxins promote the growth of a tendril around a support ?



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44. Design an experiment to demonstrate hydrotropism.



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45. Which hormone is secreted under the fight or flight situation ? State its effects.



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46. State the properties of animal hormones.



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47. Explain hormones related with growth in human.



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48. Explain disorders caused by hormonal imbalance in human beings.



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49. Explain feedback mechanism regulation of hormone secretion.



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50. How does chemical coordination take place in animals ?



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51. Why is the use of iodised salt advisable ?



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52. How does our body respond when adrenaline is secreted into the blood ?





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53. Why are some patients of diabetes treated by giving injections of insulin ?



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Textual Exercise

1. Which of the following is a plant hormone ?

- (a) Insulin (b) Oestrogen (c) Thyroxine
(d) Cytokinin

A. Insulin

B. Thyroxin

C. Estrogen

D. Cytokinin

Answer: C



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2. The gap between two neurons is called a

.....

A. dendrite

B. synapse

C. axon

D. impulse

Answer: A



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3. The brain is responsible for..... (a) thinking (b)regulating the heartbeat (c)balancing the body (d)all of the above

A. thinking

B. regulating the heartbeat

C. balancing the body

D. all of the above

Answer: A::B::C::D



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4. What is the function of receptors in our body ? Think of situations where receptors do

not work properly. What problems are likely to arise ?



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5. Draw the structure of a neuron and explain its function.



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6. How does phototropism occur in plant ?



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7. Which signals will get disrupted in case of a spinal cord injury ?



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8. How does chemical coordination occur in plants ?



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9. What is the need for a system of control and coordination in an organism ?



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10. How are involuntary actions and reflex actions different from each other ?



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11. Compare and contrast nervous and hormonal mechanisms for control and coordination in animals.



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12. What is the difference between the manner in which movement take place in a sensitive plant and the movement in our legs ?



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Additional Questions And Answers

1. Distinguish between :

Response in Plants and Response in Animals



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2. Distinguish between :

Nervous System and Endocrinal System



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3. Distinguish between :

Cerebrum and Cerebellum



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4. Distinguish between :

Plant hormones and Animal hormones



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5. Give scientific reasons for the following statements:

Response to stimuli is the characteristic of every living organism.



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6. Give scientific reasons for the following statements:

Unlike animals, the plants do not show immediate response.



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7. Give scientific reasons for the following statements:

The roots in plants grow against the direction of light.



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8. Give scientific reasons for the following statements:

The central nervous system is very well protected.





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9. Give scientific reasons for the following statements:

The foot is very suddenly lifted off as soon as it comes in contact with a burning coal.



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10. Give scientific reasons for the following statements:

The hormones secreted from the endocrine glands are present everywhere in the body.



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11. Give scientific reasons for the following statements:

The diabetic patient is given injections of insulin.



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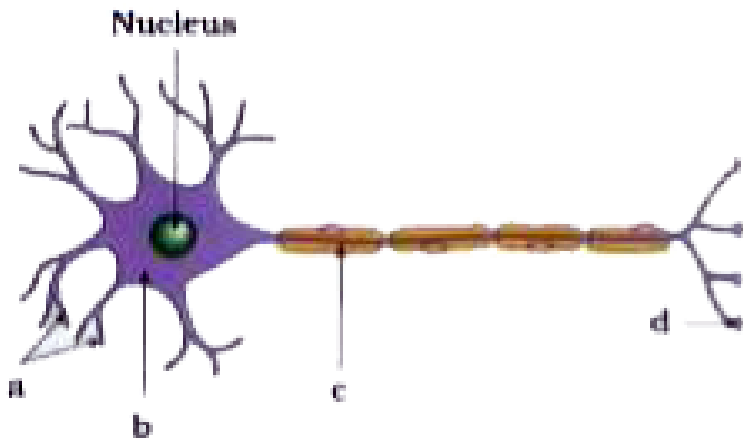
12. Give scientific reasons for the following statements:

It is advisable to take iodized salt in daily food.



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13. Carefully observe the given diagram and answer the questions related with it:

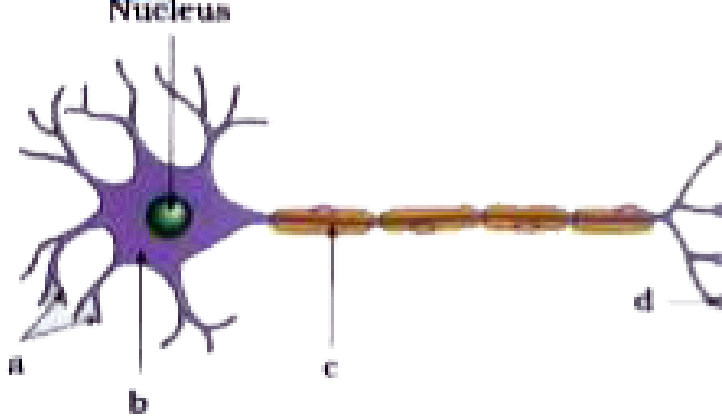


Identify 'a' and state the function of it.



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14. Carefully observe the given diagram and answer the questions related with it:

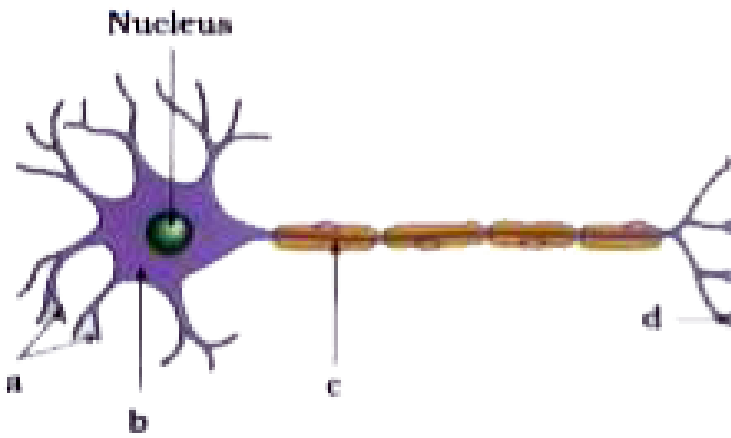


At which region in diagram chemicals are released ?



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15. Carefully observe the given diagram and answer the questions related with it:

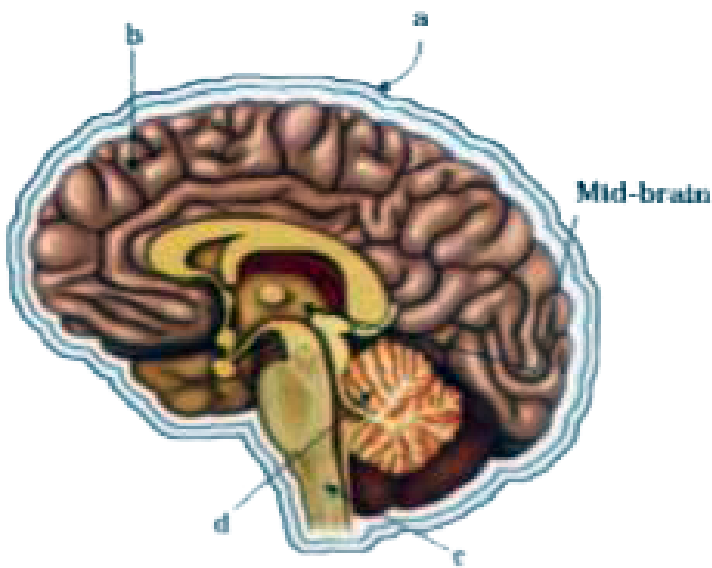


Identify 'c' and state from which it originates.



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16. Carefully observe the given diagram and answer the questions related with it:

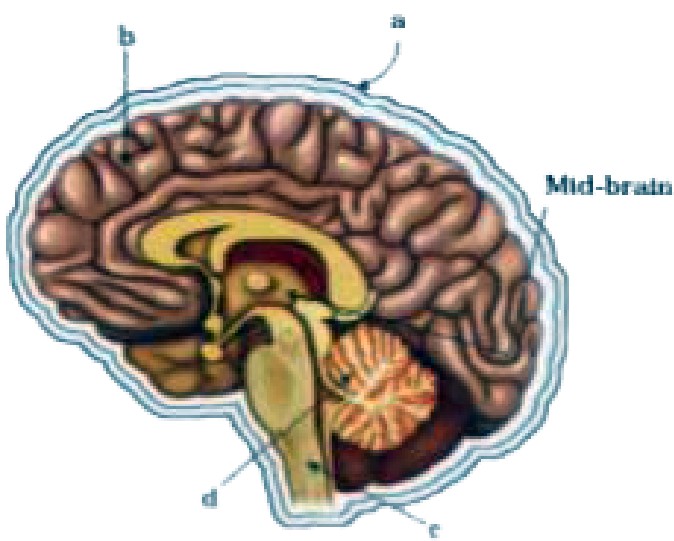


Identify 'a' and state its function.



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17. Carefully observe the given diagram and answer the questions related with it:

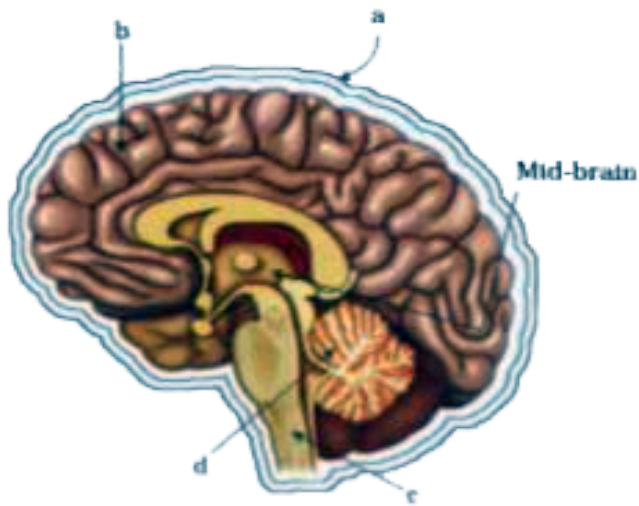


Where is information stored in brain ?

Mention its alphabet.

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18. Carefully observe the given diagram and answer the questions related with it:

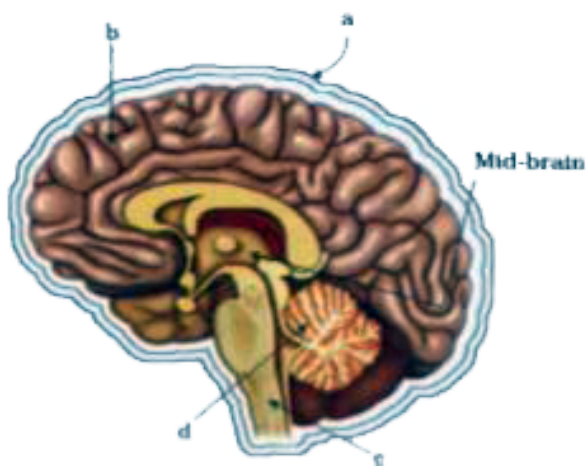


State any two functions of part 'd'.



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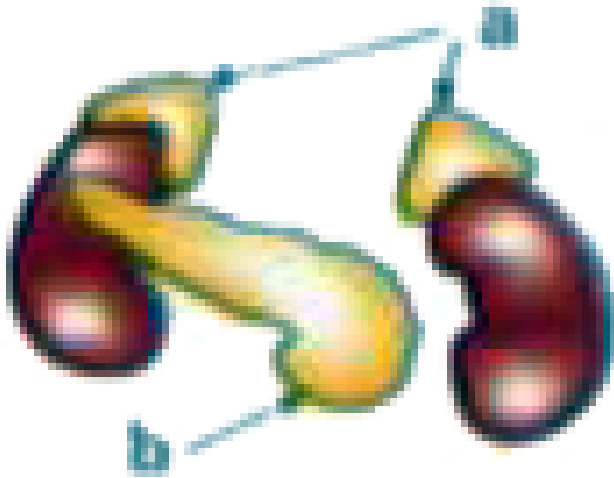
19. Carefully observe the given diagram and answer the questions related with it:



Identify 'c'. State the name of special structure formed by it which show quick response.

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20. Carefully observe the given diagram and answer the questions related with it:

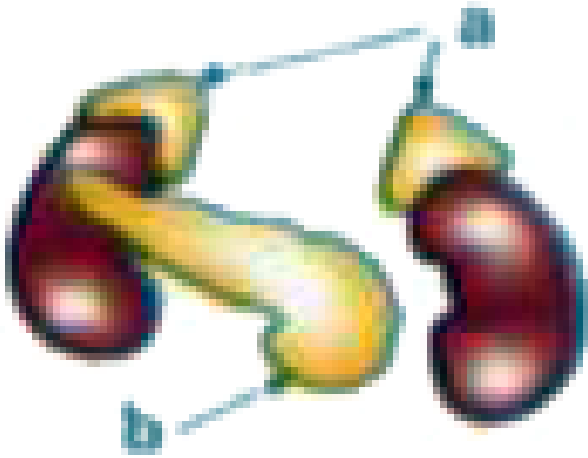


State the name of 'a' and 'b' with location.



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21. Carefully observe the given diagram and answer the questions related with it:

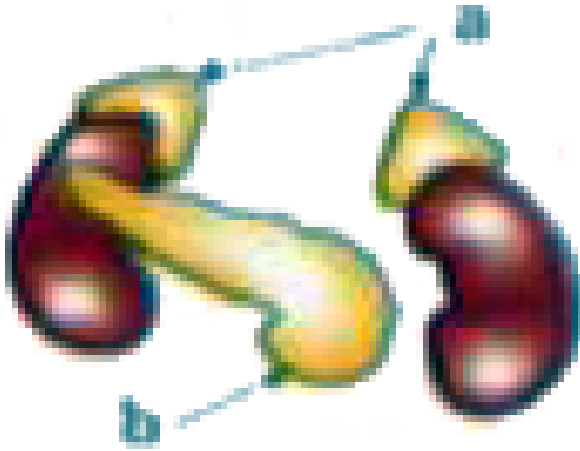


State any two functions of 'b'.



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22. Carefully observe the given diagram and answer the questions related with it:



In which condition, 'a' is stimulated and give the name of its secretion.

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Objective Questions And Answers Answer The Following Questions In Short

1. Name the two systems of control and coordination in higher animals.



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2. Name the three components of a nerve cell.



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3. Name the most important part of the human brain.



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4. State one function of cerebellum.



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5. Give the function of medulla.



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6. Name the structural and functional unit of nervous system.



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7. Name one hormone secreted by the pituitary gland.



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8. Give example of the movement of a plant part which is caused by the loss of water.



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9. What is the response of roots to gravity?

What is this phenomenon known as ?



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10. What is the response of stem to light ?

What is this phenomenon known as ?



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11. What is an impulse ?



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12. What is gustatory receptors ? Where they located ?



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13. By what is nervous tissue made-up of ?

What is its special ability ?



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14. State any two examples of movement in

order to protect ourselves.



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15. What are components of peripheral nervous system ?



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16. Which separate areas are there in fore-brain ?



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17. Why thinking is called a complex activity ?





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18. How do we know that we have eaten enough ?



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19. Which involuntary actions are controlled by medulla in the hind-brain?



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20. How do animal muscles move ?



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21. How does a muscle cell move ?



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22. How do muscle cells change their shape ?



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23. How does leaves of chhui-mui respond to touch stimulus ?



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24. Why are hormones called chemical messengers ?



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25. Which plant hormone inhibits growth ?
State its effect.



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26. Why is chemical signal required along with electrical impulses in higher animals ?



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27. Who constitutes a second way of control and coordination in our body ?



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28. Where is auxin synthesised and where does it diffuse ?



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29. Secretion of which hormone in males and in females is responsible for pubertal changes ?



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30. State the secretory site and function of growth hormone releasing factor.



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Objective Questions And Answers Define Or Explain The Terms

1. Define : OR Explain the terms :

Stimulus



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2. Define : OR Explain the terms :

Response



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3. Define : OR Explain the terms :

Coordination



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4. Define : OR Explain the terms :

Tropism



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5. Define : OR Explain the terms :

Hormone



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6. Define : OR Explain the terms :

Endocrine gland



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7. Define : OR Explain the terms :

Receptors



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8. Define : OR Explain the terms :

Central Nervous System



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9. Define : OR Explain the terms :

Reflex arc



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10. Define : OR Explain the terms :

Synapse

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Objective Questions And Answers Fill In The Blanks

1. The plants coordinate their behaviour against the environmental changes by using

.....

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2. The responses of plants are not rapid for want of



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3. is a growth-inhibitor hormone of plants.



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4. The stem exhibitsgeotropism andphototropism.



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5. The tendrils of pea plants are the example of



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6. The olfactory receptors will detect

.....



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7. have evolved in animals as efficient ways of functioning in the absence of true thought processes.



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8. part of brain for learning process and part of brain responsible for memory.



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9. The cells of sensitive plant change shape by changing the in them resulting in swelling or shrinking.



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10. Cytokinins promotes in plants.



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11. hormone has the target organ heart.



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12. The timing and amount of animal hormone released are regulated by





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Objective Questions And Answers State Whether The Following Statements Are True Or False

1. State True or False. Many involuntary actions are controlled by the mid-brain and hind-brain.



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2. State True or False. Brain is never involved in reflex action.



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3. The communication between the peripheral nervous system and the other parts of the body is facilitated by the central nervous system. True or False



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4. Neuromuscular junction is synapse like gap between nerve ending and muscle fibre.





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5. State True or False. When we have cold, efficiency of olfactory receptors reduces.



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6. State True or False. Nerve cells have special proteins that change their shape and arrangement for conduction of impulse.



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7. State True or False. Touch-me-not, a sensitive plant is of the Mimosa family.



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8. State True or False. The movement of sunflowers in response to day or night is quite fast.



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9. State True or False. The sensitive plants detect the touch though there is no nervous tissue or any muscle tissue.



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10. State True or False. Gibberellin gives signal to plant to stop the growth.



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11. Hypothalamus plays an important role in the release of many hormones from pituitary gland.



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12. State True or False. Chemical coordination is seen in both plants and animals.



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1. Match the following:

Column I	Column II
1. Fore-brain	a. Balance of body
2. Medulla	b. Reflex arc
3. Cerebellum	c. Main thinking part
4. Spinal cord	d. Salivation



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2. Match the following:

Column I	Column II
1. Insulin	a. Testes
2. Testosterone	b. Pancreas
3. Growth hormone	c. Ovaries
4. Estrogen	d. Pituitary



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3. Match the following:

Column I	Column II
1. Auxin	a. Wilting of leaves
2. Gibberellin	b. Promotes cell-division
3. Cytokinin	c. Helps in stem-growth
4. Abscisic acid	d. Phototropism



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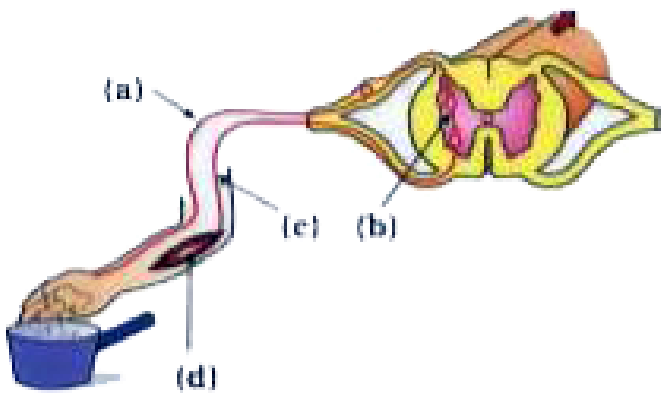
4. Match the following:

Column I	Column II
1. Adrenaline	a. Regulates blood sugar level
2. Thyroxin	b. Increases breathing, heart beats.
3. Insulin	c. Regulates menstrual cycle.
4. Estrogen	d. Regulates metabolism for body growth.



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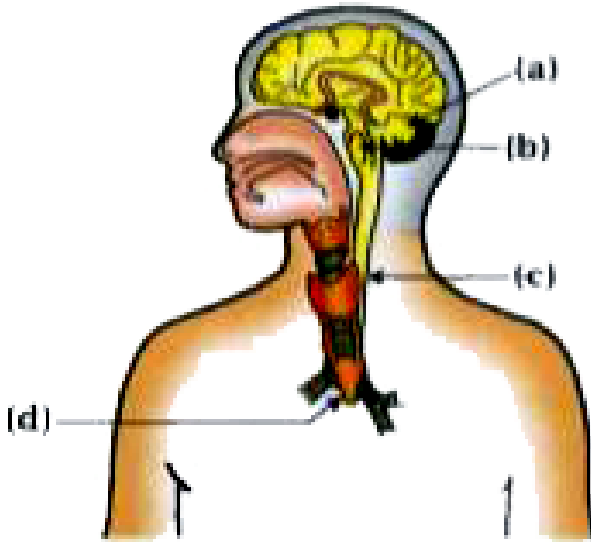
5. Label (a), (b), (c) and (d) in the given figure showing the pathway of thermal impulse.



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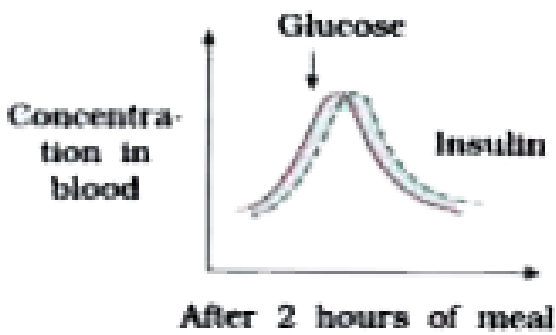
6. Identify (a), (b), (c) and (d) in the given figure. Give one name of the hormone

secreted from each of any two of them.



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7. A graph shows change after a lunch of a healthy individual whose diet is rich in sweets.



What you explain from it ?



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8. Give the correct sequence of conduction of impulse.



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9. Trace the sequence of events which occur when a bright light is focused on your eyes ?



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10. Find mismatched pair :

Iodine - Functioning of thyroid gland

Insulin - Regulates blood sugar level

Hypothalamus - Regulates the secretion of pituitary

Estrogen - Obstructs menstrual cycle





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11. Identify me : I am a hormone generally for an emergency, increases breathing rate but reduce blood flow to digestive system and skin.



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12. State the correct sequence of impulse for spinal reflex.



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13. Who am I? I am present in greater concentration areas of rapid cell division, such as in fruits and seeds.



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14. Movement dependent on growth : Tendrils of pea :: Movement independent of growth :

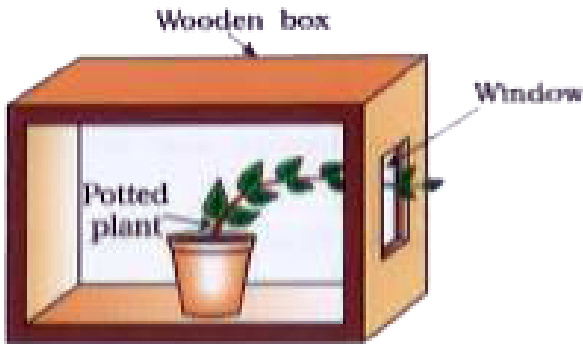
.....



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15. Which event is indicated in the diagram ?

Which hormone is responsible for it ?



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16. Deficiency of growth hormone :.....::

Deficiency of : diabetes





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17. Identify me : I am controlling your daily activities such as walking, riding a bicycle, picking up object, etc.



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18. Find mismatched pair :

Growth related movement - slower

Movement in sunflower in response to day or

night- quite slow

Movement of our leg - very slow



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19. Give the scientific terms used to represent the following:

Bending of a shoot towards light



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20. Give the scientific terms used to represent the following:

Growing of roots towards the earth



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21. Give the scientific terms used to represent the following:

Growing of a pollen tube towards ovule



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22. Give the scientific terms used to represent the following:

Bending of roots towards water



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23. Give the scientific terms used to represent the following:

Winding of tendrils around a support



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24. Bony box : Brain

..... : Spinal cord



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Hypothalamus



a



b



Growth hormone



Regulates growth

25.

Regulates growth and development of body.

Fill a and b to make the correct sequence.

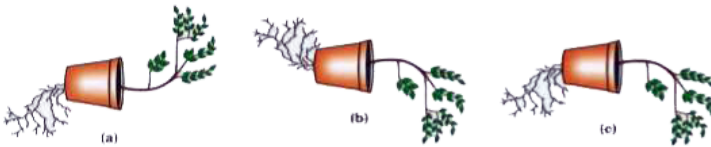


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Objective Questions And Answers Chart Diagram Based Questions

1. Which of the following diagram is correct ?

Why?



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Objective Questions And Answers Select The Correct Alternative From Those Given Below Each Question

1. The roots of a plant are A) positive phototropic, but negative geotropic B) negative geotropic, but negative phototropic C) negative phototropic, but positive hydrotropic D) negative hydrotropic, but positive phototropic

A. positive phototropic, but negative geotropic

B. negative geotropic, but negative phototropic

C. negative phototropic, but positive hydrotropic

D. negative hydrotropic, but positive phototropic

Answer: A::B::C::D



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2. The diagram shows a plant which has received light from one side only. Which characteristics are shown by the plant ?



- A. Excretion and growth
- B. Response and reproduction
- C. Growth and response
- D. Reproduction and nutrition

Answer: A::D



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3. The growth of a pollen tube towards the ovule is caused by A) phototropism B) hydrotropism C) geotropism D) chemotropism

A. phototropism

B. hydrotropism

C. geotropism

D. chemotropism

Answer: C



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4. For the synthesis of which of the following hormone is iodine necessary? A. Adrenaline B. Auxin C. Thyroxin D. Insulin

A. Adrenaline

B. Auxin

C. Thyroxin

D. Insulin

Answer:



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5. Which of the following hormone prepares our body for action in emergency situations?

A) Testosterone B) Growth hormone C) Adrenaline D) Insulin

A. Testosterone

B. Growth hormone

C. Adrenaline

D. Insulin

Answer: A::D



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6. Which is male sex hormone? a.Estrogen
b.Adrenaline c.Testosterone d.Progesterone

A. Estrogen

B. Adrenaline

C. Testosterone

D. Progesterone

Answer:



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7. Which of the following endocrine gland does not occur as a pair in the human body?

a.Adrenal b.Pituitary c.Testis d.Ovary

A. Adrenal

B. Pituitary

C. Testis

D. Ovary

Answer: A



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8. Which of the following helps in maintaining posture and balance of the human body? a.

Cerebrum b. Cerebellum c. Medulla d. Pons

A. Cerebrum

B. Cerebellum

C. Medulla

D. Pons

Answer: B::C



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9. Which of the following plant shows immediate response to touch by its leaves ?
a.Sunflower b.Peas c.Mimosa d. None of the given

A. Sunflower

B. Pea

C. Mimosa

D. None of the given

Answer: A



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10. By whom are the continuous heartbeats controlled ? a.Cerebrum b.Cerebellum c.Mid-brain d.Medulla



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11. Where are the regulatory centres for the blood pressure located ? a. Cerebrum b. Cerebellum c. Mid-brain d. Medulla

A. Cerebrum

B. Cerebellum

C. Mid-brain

D. Medulla

Answer: A::D



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12. Which of the following plant hormone helps in the growth of the stem ? a. Auxin b. Gibberellin c. Cytokinin d. Absciscic acid

A. Auxin

B. Gibberellin

C. Cytokinin

D. Absciscic acid

Answer: A::B



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13. Through whom does the impulse enter into the cyton? a. Dendrite b. Axons c. Both A and B
d. None of the given

A. Dendrite

B. Axons

C. Both A and B

D. None of the given

Answer: D



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14. Which is the largest and the most complex part of the human brain? a. Medulla b. Cerebellum c. Hypothalamus d. Cerebrum

A. Medulla

B. Cerebellum

C. Hypothalamus

D. Cerebrum

Answer: B::C



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15. Who regulates the involuntary reflexes such as coughing, sneezing, hiccup, vomiting, etc. ? a. Medulla b. Cerebellum c. Hypothalamus d. Cerebrum

A. Medulla

B. Cerebellum

C. Hypothalamus

D. Cerebrum

Answer: A::D



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16. The deficiency of which hormone causes diabetes ? a. Estrogen b. Thyroxin c. Adrenaline
d. Insulin

A. Estrogen

B. Thyroxin

C. Adrenaline

D. Insulin

Answer:



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17. Where is the arrangement in the body for reflex action? a. In medulla oblongata b. In spinal cord c. In pons d. In heart

A. In medulla oblongata

B. In spinal cord

C. In pons

D. In heart

Answer: A::C::D



Watch Video Solution

18. What is the main function of endocrine system in animals? A) Coordination B) Combination C) Regulatory D) None of the given

A. Coordination

B. Combination

C. Regulatory

D. None of the given

Answer: A::C::D



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19. Which ovarian hormone regulates menstrual cycle in women ? A) Testosteron B) Estrogen C) Thyroxin D) None of these

A. Testosteron

B. Estrogen

C. Thyroxin

D. None of these

Answer:



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20. Which gland is stimulated to release its secretion in a scary situation in squirrels ? A)

Adrenal B) Pituitary C) Thyroid D)

Hypothalamus

A. Adrenal

B. Pituitary

C. Thyroid

D. Hypothalamus

Answer: A::D



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21. "Withdrawal of hand when unknowingly a rose prickle pricks the hand", which is this

process? a. Autonomous reaction b. Reflex
action c. Thigmotropism d. None of the given

A. Autonomous reaction

B. Reflex action

C. Thigmotropism

D. None of the given

Answer: A::C



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22. Hypothalamus is a part of A. Fore-brain B. Spinal cord C. Muscle tissue D. Cerebellum

A. Fore-brain

B. Spinal cord

C. Muscle tissue

D. Cerebellum

Answer: A::B



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23. Who secretes releasing hormones? A. Pituitary gland B. Hypothalamus C. Autonomous Nervous System D. Thalamus

A. Pituitary gland

B. Hypothalamus

C. Autonomous Nervous System

D. Thalamus

Answer: A



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24. Whose excessive secretion causes the body to look like a gorilla? A.Thyroxin B.Growth hormone C.Adrenaline D. All of the given

A. Thyroxin

B. Growth hormone

C. Adrenaline

D. All of the given

Answer:



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25. Which disease takes place when there is a increase of sugar in the blood and in the urine? A. Dwarfism B. Goitre C. Diabetes D. Both A and B

A. Dwarfism

B. Goitre

C. Diabetes

D. Both A and B

Answer: A::B::D



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26. Statement A: Adrenaline diverts the blood to skeletal muscles of squirrel.

Reason R: Squirrel relies not only on electrical chemical impulses but also on signals.

Which option is correct for Statement A and Reason R?

A. A) Both A and R are correct and R is explanation of A.

B. B) Both A and R are correct, but R is not explanation of A.

C. C) A is correct, R is incorrect.

D. D) A is incorrect, R is correct.

Answer: A::B::C::D



Watch Video Solution

27. Statement A: The fore-brain is the main thinking part of the brain.

Reason R: Thinking is a complex activity that

involves a complicated interaction of many nerve impulses.

Which option is correct for Statement A and Reason R?

A. Both A and R are correct and R is explanation of A.

B. Both A and R are correct, but R is not explanation of A.

C. A is correct, R is incorrect.

D. A is incorrect, R is correct.

Answer: A::B::C::D



Watch Video Solution

28. Statement A: Auxin helps the cells to grow longer and plant appears to bend towards light.

Reason R: Auxin diffuses towards shady side of shoot from its tip.

Which option is correct for Statement A and Reason R?

A. Both A and R are correct and R is explanation of A.

B. Both A and R are correct, but R is not explanation of A.

C. A is correct, R is incorrect.

D. A is incorrect, R is correct.

Answer: A::B::C::D



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29. How many endocrine glands from following are not in pairs ?

Pancreas, adrenal, thyroid, testes, pituitary a.2

b.3 c.4 d.5

A. 2

B. 3

C. 4

D. 5

Answer: C



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30. Find incorrect statement for cerebrum. a. It receives sensory impulses from various receptors. b. It has areas where information stored. c. It passes information to which control the movement of voluntary motor areas muscles. d. It maintains posture and balance of the body.

A. It receives sensory impulses from various receptors.

B. It has areas where information stored.

C. It passes information to which control the movement of voluntary motor areas muscles.

D. It maintains posture and balance of the body.

Answer: A::B::C::D



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31. Which is sensitive to touch ? A. Human skin
B. Tendrils of pea C. Leaves of mimosa D.
Flowers of Sunflower

A. Human skin

B. Tendrils of pea

C. Leaves of mimosa

D. Flowers of Sunflower

Answer: A::D



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Objective Questions And Answers Answer As Directed Miscellaneous

1. What is full form of CNS ?



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Value Based Questions With Answers

1. You saw a tragic road accident resulting in death of two persons. The reason for that is bike rider tried to overtake the truck from

wrong-side with overspeed. He was not wearing a helmet that caused head injury.

You were scared because you also have same habit to drive activa without wearing helmet.

Your father often warned you that to drive vehicle without a driving licence is a crime.

Which part of brain is involved into learning how to drive vehicle ?



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2. You saw a tragic road accident resulting in death of two persons. The reason for that is bike rider tried to overtake the truck from wrong-side with overspeed. He was not wearing a helmet that caused head injury.

You were scared because you also have same habit to drive activa without wearing helmet.

Your father often warned you that to drive vehicle without a driving licence is a crime.

Injury to which part of brain leads to instant death of an individual ? Why ?



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3. You saw a tragic road accident resulting in death of two persons. The reason for that is bike rider tried to overtake the truck from wrong-side with overspeed. He was not wearing a helmet that caused head injury.

You were scared because you also have same habit to drive activa without wearing helmet.

Your father often warned you that to drive vehicle without a driving licence is a crime.

Which gland became more active when you saw the accident ? Which hormone was

poured in blood ? What changes did you feel in body?



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4. Your father-mother are a age-group at forty plus. On their routine blood test, some disturbance in their blood tests were reported. Your family doctor advised your father to walk regularly and consume a diet containing low sugar. Doctor insisted your mother to take 25 mg elthroxine tablet daily.

From your study, what do you think about the report of the blood test of your father ?



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5. Your father-mother are a age-group at forty plus. On their routine blood test, some disturbance in their blood tests were reported. Your family doctor advised your father to walk regularly and consume a diet containing low sugar. Doctor insisted your mother to take 25 mg elthroxine tablet daily.

Which gland is not functioning properly and which hormone is not secreted in appropriate amount in your father's body ?



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6. Your father-mother are a age-group at forty plus. On their routine blood test, some disturbance in their blood tests were reported. Your family doctor advised your father to walk regularly and consume a diet containing low sugar. Doctor insisted your

mother to take 25 mg elthroxine tablet daily.

Which gland is affected in your mother's body ?



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7. Your father-mother are a age-group at forty plus. On their routine blood test, some disturbance in their blood tests were reported. Your family doctor advised your father to walk regularly and consume a diet containing low sugar. Doctor insisted your

mother to take 25 mg elthroxine tablet daily.

Why elthroxine tablet is suggested by the doctor ?



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8. You were visiting your friend's house. You observed some indoor plants in drawing room. You noticed that shoots of all plants slightly moved towards open window. Aunty told you that she had often changed the position of the arrangement of plants. But in any position

shoots of plants showed same behaviour.

Which movements are shown by plants ?



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9. You were visiting your friend's house. You observed some indoor plants in drawing room. You noticed that shoots of all plants slightly moved towards open window. Aunty told you that she had often changed the position of the arrangement of plants. But in any position shoots of plants showed same behaviour.

Which hormone is responsible for such movement in plant ?



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10. You were visiting your friend's house. You observed some indoor plants in drawing room. You noticed that shoots of all plants slightly moved towards open window. Aunty told you that she had often changed the position of the arrangement of plants. But in any position shoots of plants showed same behaviour.

How such hormone is functioning in plant body ?



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11. You were visiting your friend's house. You observed some indoor plants in drawing room. You noticed that shoots of all plants slightly moved towards open window. Aunty told you that she had often changed the position of the arrangement of plants. But in any position shoots of plants showed same behaviour.

Which arrangement do you suggest for plants to show straight growth of shoot?



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Practical Skill Based Questions With Answers

1. Four different students of your class observed network of neurons in a slide under microscope. They drew a diagram of synaptic junction.

From your knowledge.

Which of the following figures shows the correct pathway for the conduction of impulse ?



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2. Four different students of your class observed network of neurons in a slide under microscope. They drew a diagram of synaptic junction.

From your knowledge.

What is synaptic junction ?



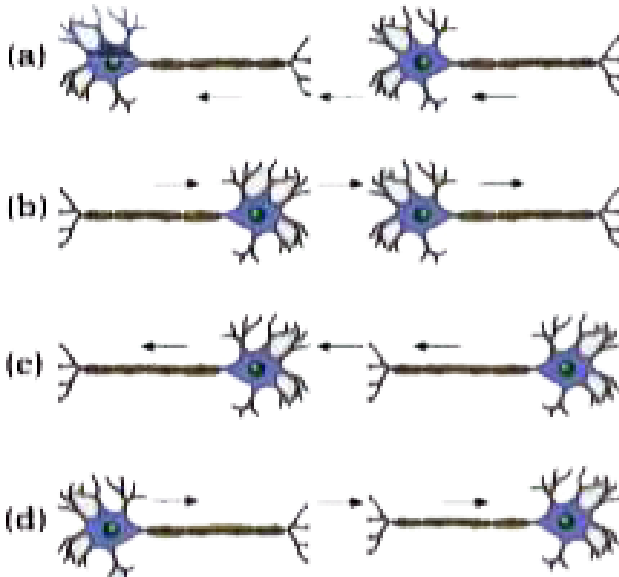
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3. Four different students of your class observed network of neurons in a slide under microscope. They drew a diagram of synaptic junction.

From your knowledge.

Which other junction do you know that is

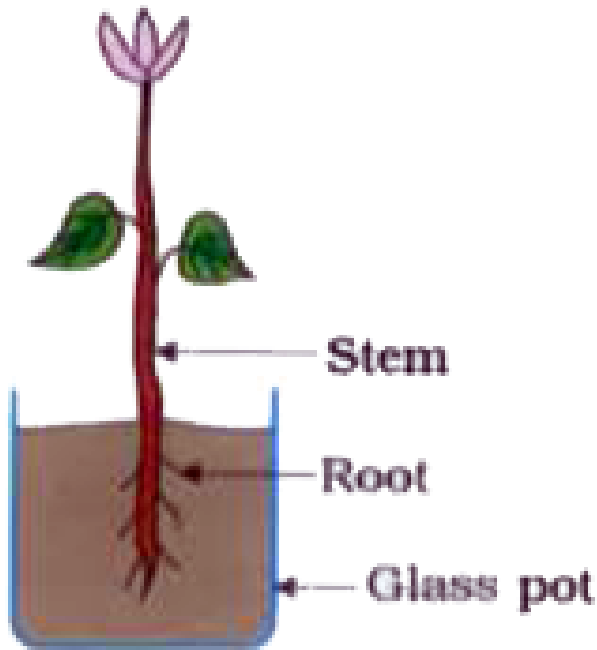
some what similar to synapse ?

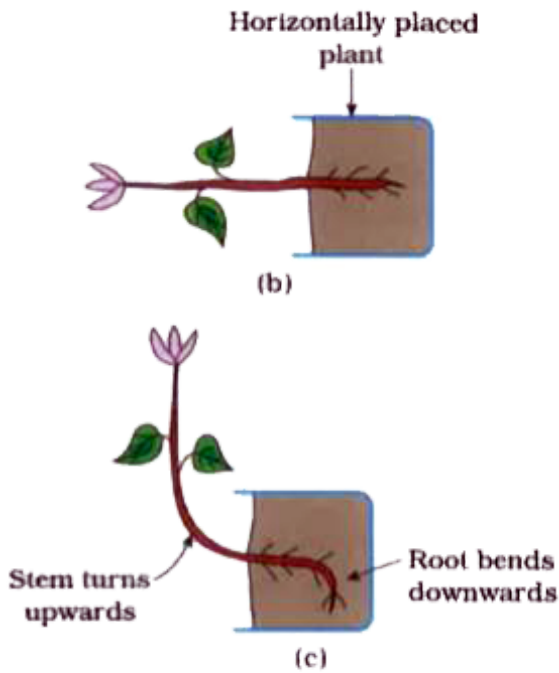


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4. Your subject teacher arranged a potted plant as shown in figure (a). Next day turn its position horizontally as shown in figure (b).

After few days, you observed the plant as shown in figure (c).



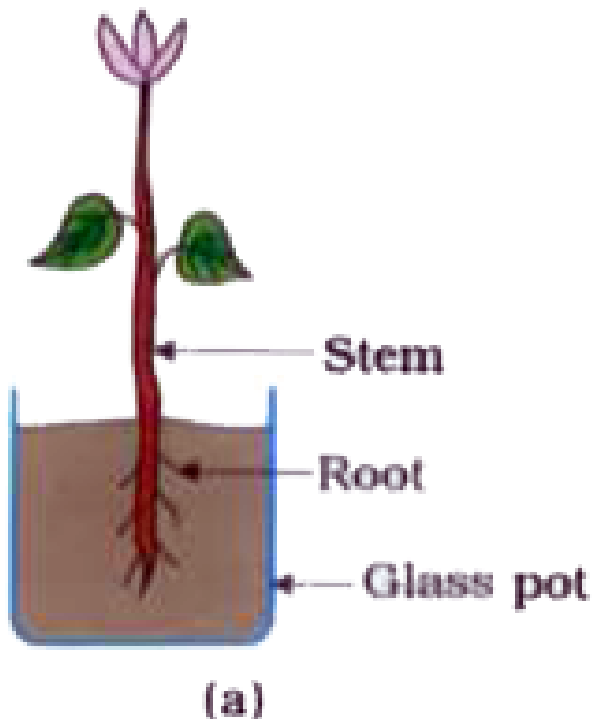


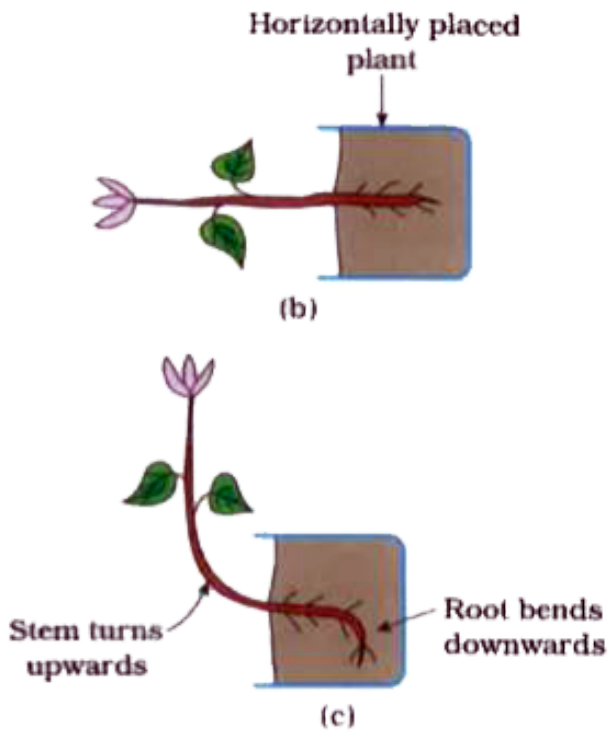
State the direction of growth of root and stem in the plant.



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5. Your subject teacher arranged a potted plant as shown in figure (a). Next day turn its position horizontally as shown in figure (b). After few days, you observed the plant as shown in figure (c).



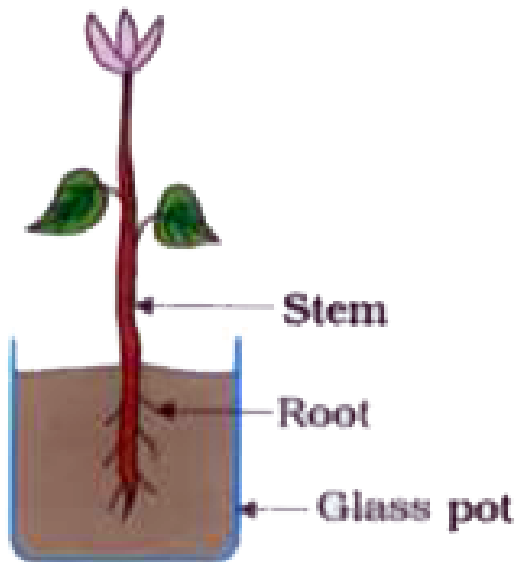


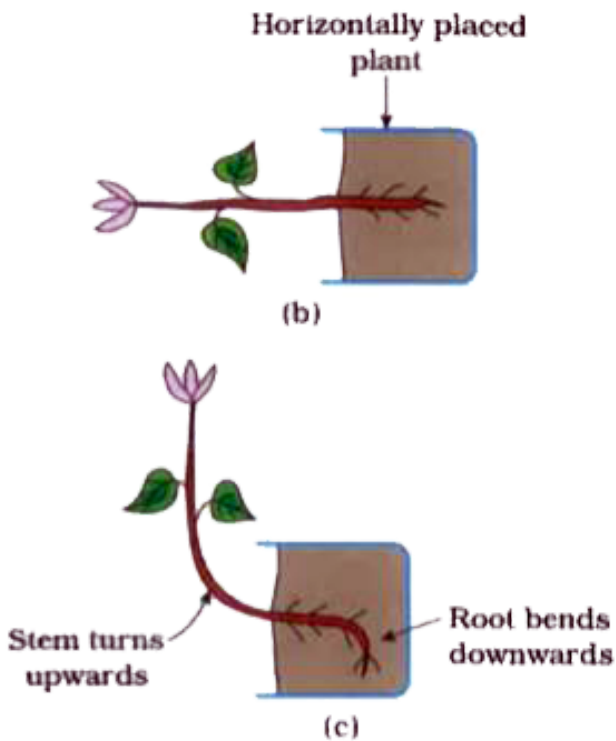
What happens when the pot along with the plant is placed as in fig. (b)?



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6. Your subject teacher arranged a potted plant as shown in figure (a). Next day turn its position horizontally as shown in figure (b). After few days, you observed the plant as shown in figure (c).



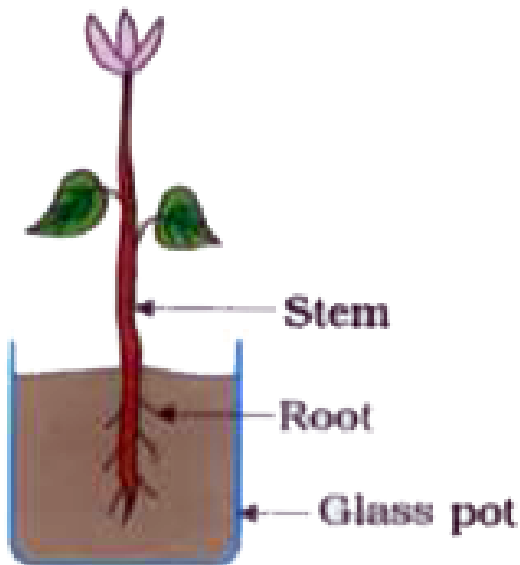


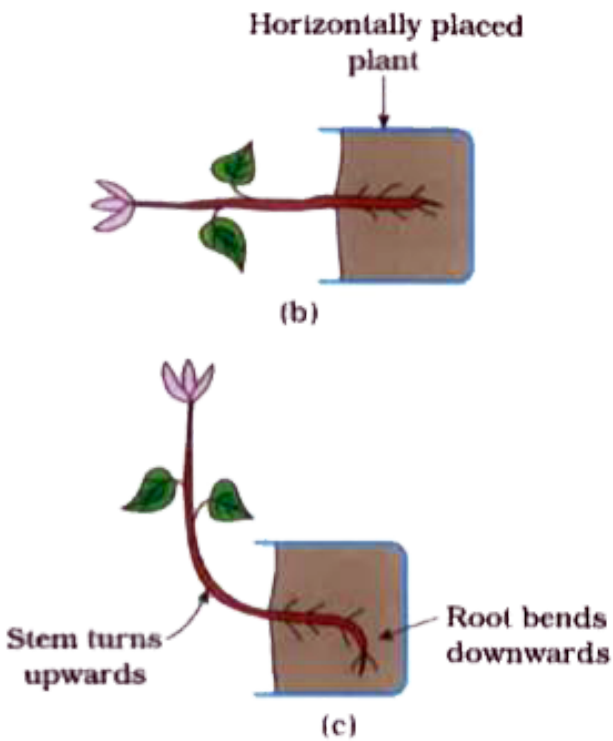
Why the growth of the entire plant as shown in fig. (b) does not occur parallel to the soil surface ?



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7. Your subject teacher arranged a potted plant as shown in figure (a). Next day turn its position horizontally as shown in figure (b). After few days, you observed the plant as shown in figure (c).





Which type of movement does this experiment explain ?

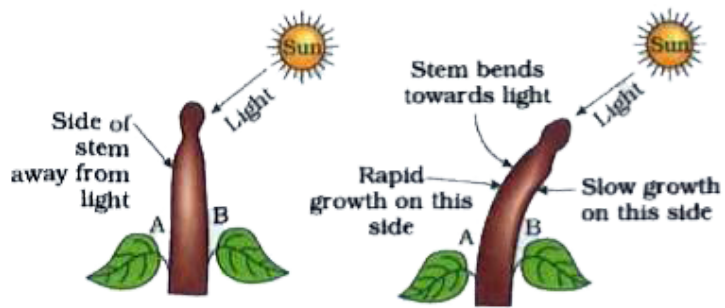


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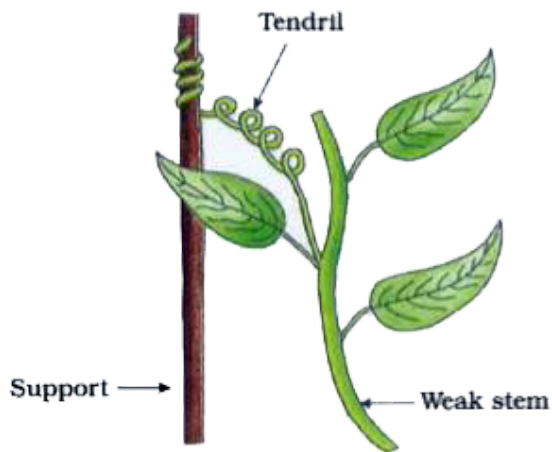
8. Observe figs. (a), (b), (c) and (d).

→ Determine on the basis of your observations whether the movement occurring in the plant is growth based or not?

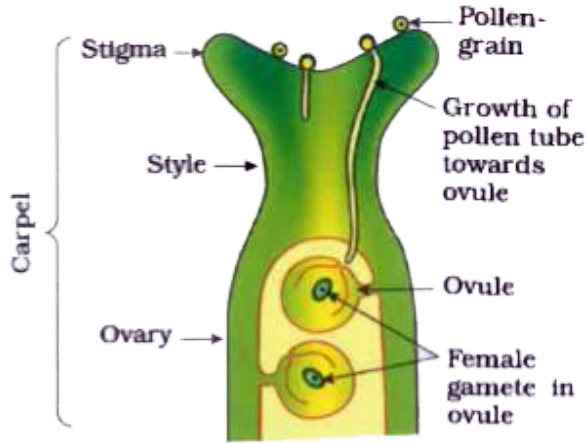
→ State the type of movement occurred herein.



(a)



(b)



(c)



Petals of flower open in light



Petals of flower close in dark

(d)



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