



### **BIOLOGY**

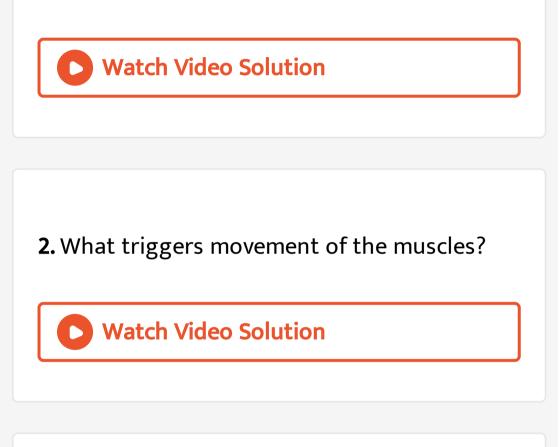
## BOOKS - VGS BRILLIANT BIOLOGY (TELUGU ENGLISH)

# COORDINATION - THE LINKING SYSTEM

**Textual Lesson Part** 

1. What other functions do you think needed

in coordination and balance?



**3.** How do we respond so fast according to situation ?

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#### **Conceptual Understanding**

**1.** Fill in the missing sections in the following flow chart.





**2.** Do you think body's team work maintains functioning of our body ? Justify your answer with an example.



**3.** Given an example of coordination in your body where both hormonal and nervous controls function together.



4. How do nervous system and together to

coordinate functions of your body ?



**5.** Consider that you are passing by a garbage disposal area and you immediately cover your nose. Arrange the events belown in a logical order by marking them from (i) to (v) to trace the events that happen in the nervous system from detection of foul smell (stimulus generation) to covering your nose (response).

(i) At the end of the axon, electrical impulse releases chemicals.(ii) Stimulus received by the dendritic cells of a

neuron sets off chemical reaction that creates

an electrical impulse.

(iii) Electrical impulse transmitted through cell body and axon.

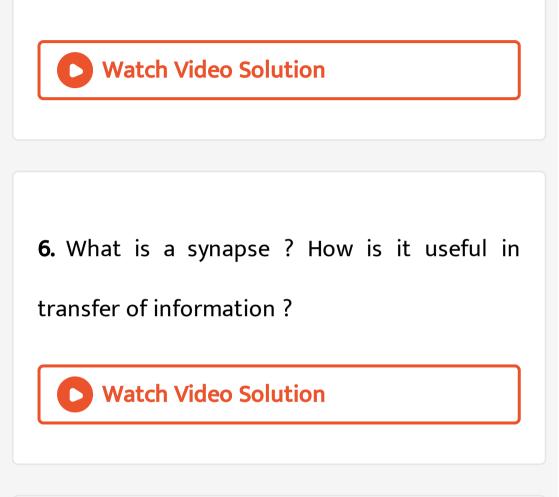
(iv) The chemicals cross the synapse and reach

the next neuron. Similarly, the electrical impulse crosses several neurons.

(v) Finally, the impulse is delivered from neuron to the gland that helps in recognition

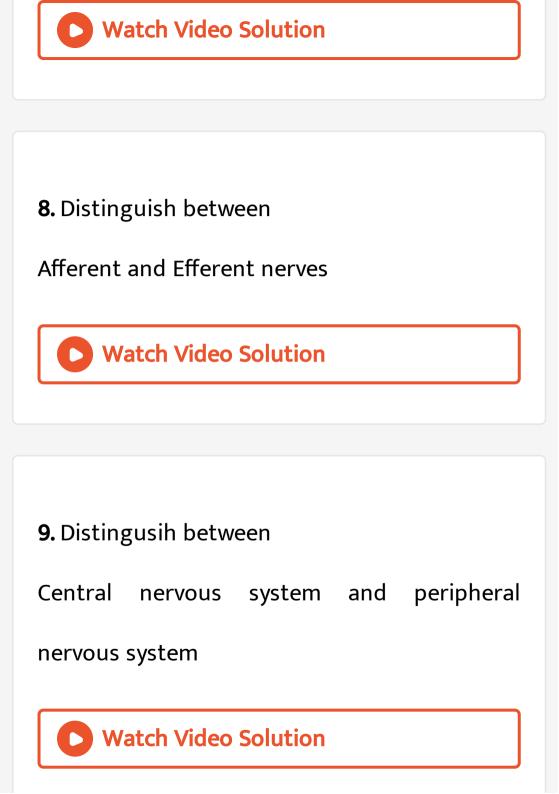
of the foul smell and muscle cells that help in

covering the nose.



7. Distinguish between

Stimulus and Response



10. Distinguish between

Receptor and effector

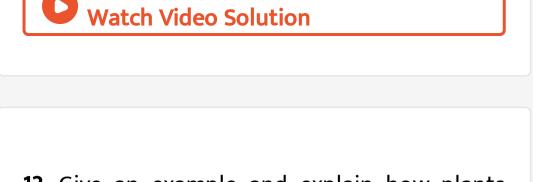
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**11.** How does Phototropism occur in plants?

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**12.** How does plant respond to sunlight ?





**13.** Give an example and explain how plants

may immediately respond to a stimulus.



**14.** How do you feel when you realize that plants respond to the stimuli of their surroundings ?

15. What is Thigmonasty ? Explain with suitable example.Watch Video Solution

**16.** Suggest an experiment to show how roots

grow away from light in most plants.



17. Give an example of a hormone and a neurotransmitter.
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18. How does a neuron differ from an ordinary

cell in structure ? Write notes.



19. How does an onion peel cell/cheek cell
differ from a neuron in its structure ?
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20. Is the structure of neuron suitable for

transmission of impulses ? Analyse.



**21.** Man is the most intelligent animal. What could be the fact the helped us to reach such a conclusion ?



**22.** The axon of nerve cell in hand is shorter than the axon of nerve cell in leg. Do you

support this statement ? Why?

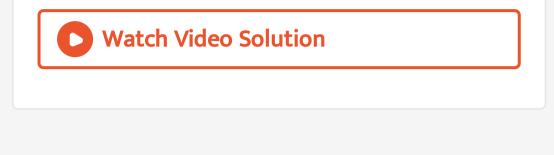
**23.** Organs respond to the external stimulus by a fraction of second. How do you feel about such controlling mechanism of human body ?

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**24.** State whether the following actions are voluntary action, reflex action or conditioned reflex.

i) Blinking ii) Cleaning the table iii) Playing on the keyboard iv) Salivating when food is put in the mouth v) We close our ears when we hear

unbearable sound.



Asking Questions And Making Hypothesis

1. What will happen to the potted plant kept

near window in the room ?

2. A plant which grows near a window bends

towards sunlight write the reason for it.

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3. What happens if all functions of the human

body are controlled only by brain ?

4. If you visit a doctor, what doubts you would

like to clarify about pancreas ?

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**Experimentation And Field Investigation** 

 Take a small potted plant. Cover base portion of the plant tightly and hang the part upside down. Observe the plant for a week.
 Based on your observation how can you support phototropism ?





2. (a) आप किस प्रकार किसी वास्तु के रंग का पता लगाते है? (b) हमारे शरीर का कौन सा भाग शरीर का संतुलन बनाये रखने में मदद करता है? (c) नेत्र किस प्रकार रेटिना पर पड़ने वाले प्रकाश का नियमन करते है?

**3.** What procedure do you follow to understand the effect of plant growth hormones (in agar medium) in the terminal portion of the tip of stem (coleoptile) ?

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#### Information Skills And Projects

**1.** Collect information on the actions controlled by spinal cord by using reference

books from your school library.



**2.** Read the following sentences and compare with endocrine glands.

Pheromones are chemical substances secreted by organisms. These act as chemical signals secreted by exocrine glands. Pheromones are used as signals by the members of same species. Honeybee secretes pheromones that attract other bees to the location of food.





**3.** Collect the information about cranial nerves, spinal nerves from internet or from your

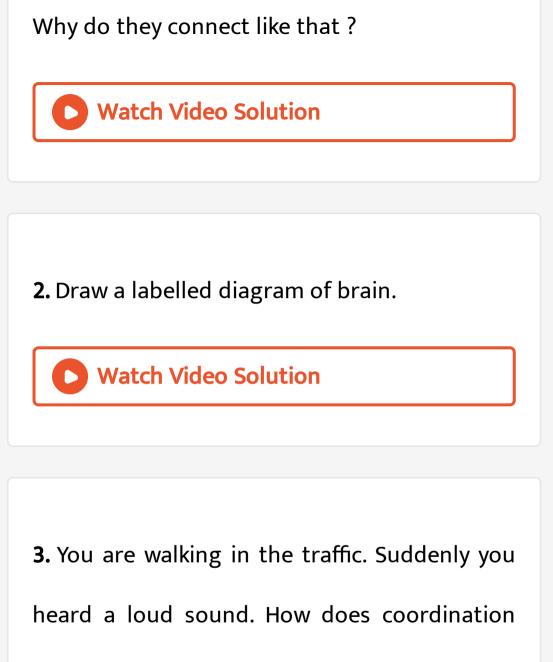
school library.

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### Communication Through Drawing Model Making

1. Draw a picture representing connection

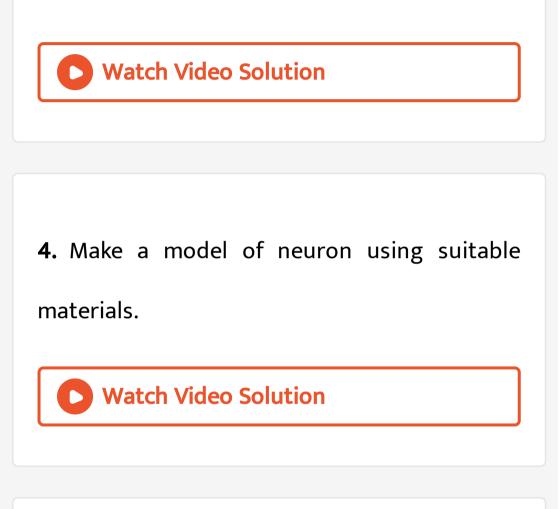
between dendrite - dendrite, axon-dendrite.



take place in this situation among respected

organs ? Draw a block diagram to explain this

situation.



5. Draw a labelled diagram of a neuron.

**6.** Observe different actions performed by your classmate for a period of 45 minutes. Out of these actions which are contolled by voluntary and involuntary pathways?

**O** Watch Video Solution

**Appreciation And Aesthetic Sense Values** 

1. Its very interesting to watch a creeper entwining its tendril to the support. Is not it ? How do you express your feelings in this situation ?

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2. Plants also respond to external stimuli. How

do you feel about this ?

**1.** Hormones are released at a specific place, specific time for a specific function. Prepare a

cartoon on hormones with a nice caption.

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1. Holding a falling stick. 尾



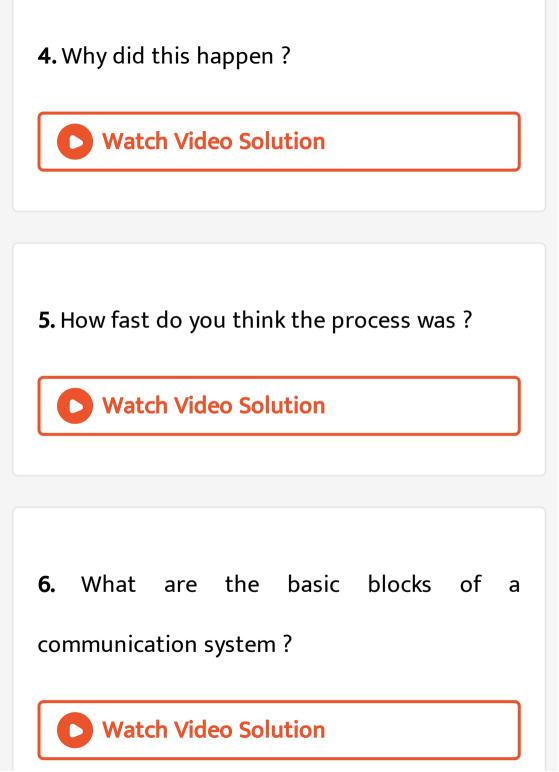


**2.** How far up was this point from the end suspended between your fingers ?



3. How far up was this point from the end

suspended between your fingers ?



**7.** Observe the permanent slide of nerve cell or neuron under microscope and try to find out its parts. Compare with the following diagram.

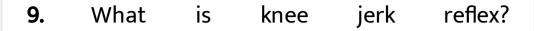
**Watch Video Solution** 

8. Observe the permanent slide of nerve cell or

neuron under microscope and try to find out

its parts. Compare with the following diagram.

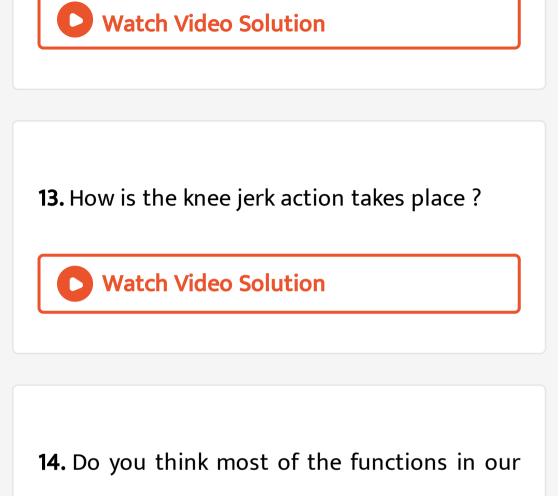






**10.** What changes do you observe in the thigh muscle? Watch Video Solution **11.** What do we cell this type of response? Watch Video Solution

**12.** What do we cell the action of kicking a football?



body go about in an involuntary manner?

Why? Why not?



**15.** Touch the leaves of Mimosa pudica (athipathi, touch me not ) plant and observe the response leaves.

Are they folding ?



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16. In which direction the folding of the leaves

take place?

17. Give some examples of situations in plants

responding to a certain stimulus.

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**18.** Take a glass jar and fill with soil. Show a bean seed near the wall of the jar. After 4 - 5 days you will notice seed germination. Keep the jar under the sun. Observe how root and shoot grows. Then tilt the glass jar and keep the plant horizontally. Observe the direction of

the root and shoot growth for more than a

week

vi) What did they observe by that experiment?

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**19.** Which side of the shoot may have grown more and which side less to bring about this effect ?

**20.** Do you find any difference in the shape of

epidermal cells ?

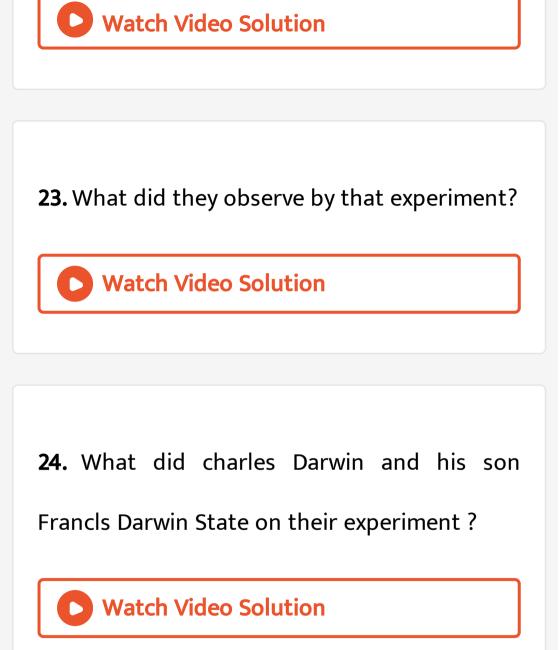
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phototropism?

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22. What did they do in their experiment?



25. What are the experiments of F.W. Went and

how did he succeeded in separating 'influence'

from the plant?

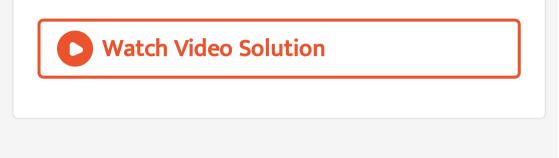


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### 26. How did Went came to know about auxin?



27. What is the meaning of auxin in Greek?



## **Questions Given In The Lesson**

1. What helps us to respond to such signals ?



2. Why does the living body respond to such signals ? Watch Video Solution 3. What did Galen conclude after his observations? Watch Video Solution

4. Which organ of our body was the detector

and which the effector to Activity -1?

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5. What do you think that the information

carried on the afferent and efferent nerves ?

6. Which root according to you get signals

from afferent nerves ?

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**7.** To which organs of the body do the nerves go from the ganglions near the vertebral column ?

8. What are the organs that receives nerves

starting from the brain?

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**9.** Which are the organs whose activities are influenced by the sympathetic nervous system?

10. Which are the organs whose activities are

influenced by the parasympathetic system ?



**11.** Have you ever observed the duration of anger ?

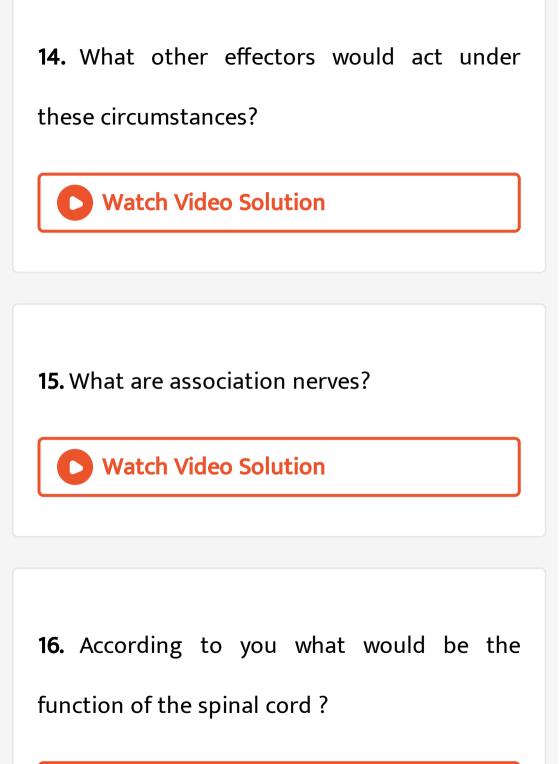


12. What may happen if anger persists for a

longer period ?

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**13.** Why do you think Galen drew such a conclusion ?





**17.** Are all functions of our body under direct control of the brain and spinal cord ? What do you think So?

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18. What do you think the end of these nerves

act at the muscular end?

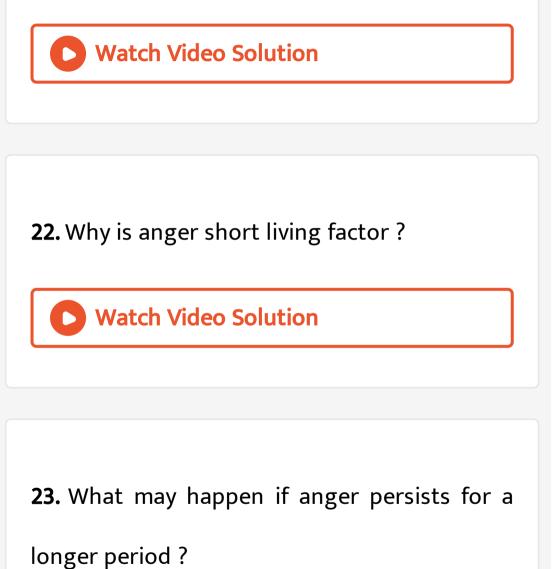
**19.** What do you understand about the functions of parasympathetic system ?

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## 20. What do you understand about the

### functions of sympathetic system ?

**21.** Why does anger come down ?



0

**24.** Think of any action and try to make a sketch of reflex arc ?

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# **Objective Assignment**

1. The largest region of the brain is .....

# 2. A point of contact between two neurons is

**3.** ..... phytohormone is responsible for cell elongation and differentiation of shoots and roots.

4. Thyroxine is responsible for .....







6. b) In a dwarf plant the branches have to be

thickened one would use ...... Hormone.



# 7. c) Seeds are to be stored a long time .....

Hormone can help.

8. d) Cutting the apex or tip of plants so that there are several lateral buds ...... Hormone can be used.

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**9.** e) The part of the brain that helps you in solving puzzles is .....

**10.** A person has loss of control on emotions, which part of brain stops its function ?

A. Cerebrum

B. Diencephalon

C. Mid brain

D. Cerebellum

Answer: B

11. Leaf movement in mimosa helps to

A. Reduce photosynthesis

B. Protect from grazers

C. Releasing phytohormones

D. Regulate its growth

Answer: B

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**12.** Diabetes is related to this gland.

A. Thyroid

**B.** Pancreas

C. Adrenal

D. Pituitary

**Answer: B** 

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**Creative Questions For New Model Paper** 

1. Name the labelled part 'X' in the above

### figure.





# **2.** To which system the above diagram is associated with ?



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3. Name the structure shown in the above

### figure.





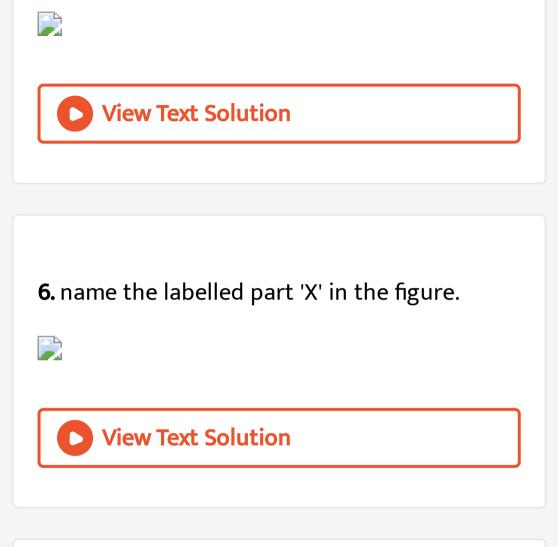
### 4. Name the structure shown in the above

#### figure.

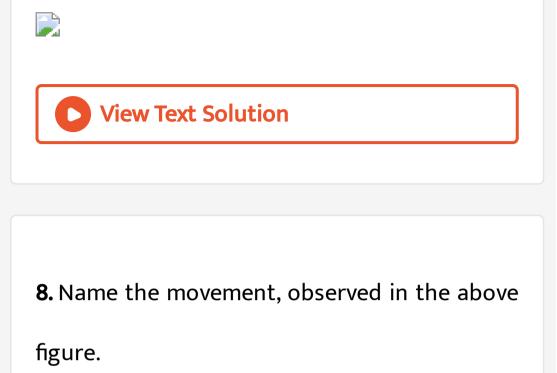


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5. The above figure represent.



**7.** Name the labelled part 'X' in the above picture.





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**9.** Name the tropic movement shown in the above picture.



### above figure.



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**11.** Identify the scientist with the help of this paragraph.

'He was a Greek physiologist. He made a

notable observation on nerves. He concluded

that nerves were of two kinds.'

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**12.** Identify the scientist.

' They recorded the survival of frogs whose

brain has been destroyed the animal still

produced muscular movements'.

**13.** Identify the scientist.

' They worked on the structure of spinal cord and found that it has two roots, one is on the drosal side and the second one is on the ventral side'.

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**14.** Identify the scientist.

' He was the professor of pathology at the university of Freiburg. In 1868, he studied the

structure of pancreas and found patches of

special cell supplied with blood capillaries'.



**15.** Name the scientists who are associated with the extraction of insulin from degenerated animal pancreas.



**16.** Identify the scientist.

' He was a dutch plant physiclogist. He conducted experiment on coleoptile tips of oat seedlings. He discovered 'auxins'.

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**17.** Identify the mis-matched pair.

- 1) Auxins Apical dominance
- 2) Cytokinins Ripening of Fruits
- 3) Abscisic acid Closing of stomata





- **18.** Identify the mis-matched pair.
- 1) Somatotrophin-growth of bones
- 2) Leutinising hormone-ovulation in females
- 3) Follicle stimulating hormone-secretion of

testosterone

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**19.** Identify the mis-matched pair.

1) Adrenalin-General growth of the body

2) Thyroxine - Control on emotions

3) Oestrogen-Control of menstrual cycle.



**20.** Identify the mis-matched pair.

- 1) Ethylene-Closing of stomata
- 2) Gibberellins Germination of seeds
- 3) Auxins Cell elongation

21. I am a phytohormone. I am helpful in

reducing waterloss in plants. Who am I?

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**22.** I am a phytohormone. I am helpful in producing seedless fruits (parthenocarpic fruits). Who am I ?

23. I am a phytohormone. Farmers used me to

soak the seeds before sowing. Who am I?

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24. I am a part of brain. I am the site of mental

abilities and memory. Who am I?



**25.** I am the part of the brain. I act as the centre for water balance, blood pressure, body temperature, sleep and hunger. Who am I?



**26.** I am the part of brain. My main function is

to maintain posture, equilibrium and muscle

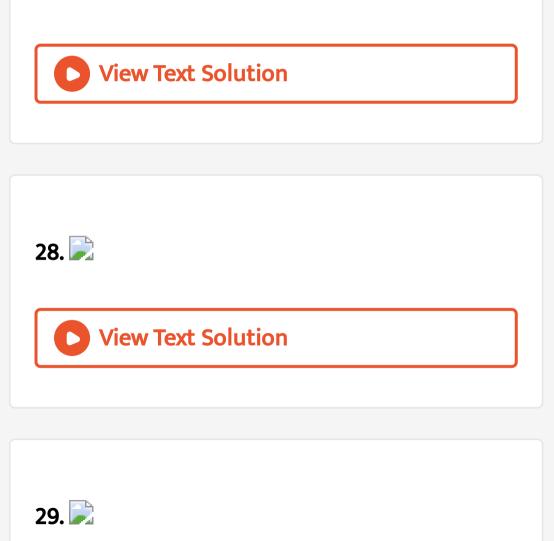
tone.



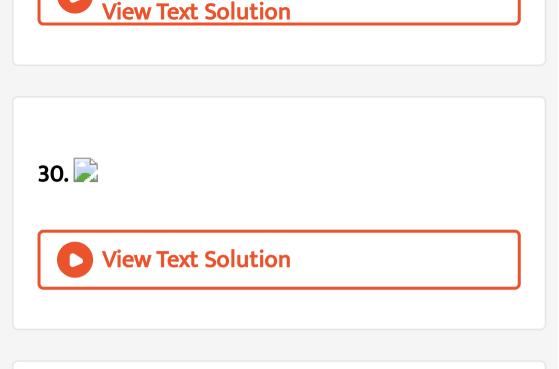
27. Observe the following classification and

complete the blank.









**31.** I am the part of central nervous system. I am the centre for reflex arcs. Who am I?

**32.** I am specialised cell for transmission of information. I have no cell divison. Who am I ?

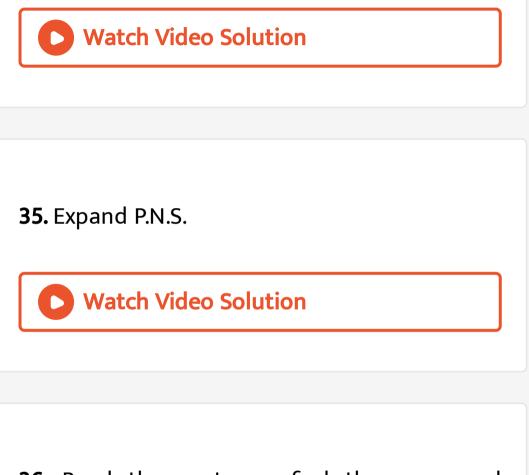
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**33.** Read the flow chart and complete the blank.



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#### **34.** Expand C.N.S.



**36.** Read the sentence, find the error and rewrite it.

Islets of langerthans are found in pancreas.

Insula means forest.



**37.** Read the sentence, find the error and rewrite it.

Adrenalin prepares our body to fight with ohters only.

**38.** Read the sentence, find the error and rewrite it.

Pituitary gland is called 'master gland' of our

body because it secretes large quantity of

hormone.

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**39.** Complete the blanks.

Cerebrum is locataed in .....(1) and

acts as site of .....(2).





**40.** Complete the blanks.

Ovary is located .....(1) and

secretes a hormone called......(2).

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**41.** Complete the blanks.

When you touch the leaves of ...... (1) plant,

they fold. It is an example for .....(2)

**42.** Complete the blanks.

.....(1) are present in scrotal sac and they

secrete a hormone called .....(2)

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**43.** Complete the blanks.

.....(1) and spinal cord are the parts of .....(2)

nervous system.

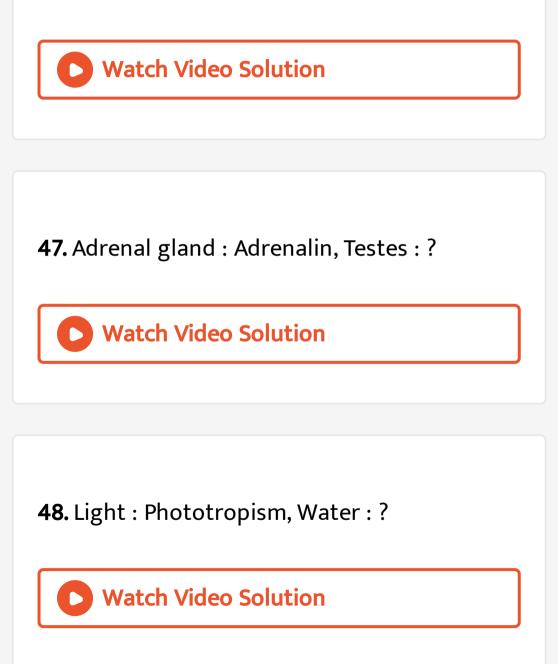
44. Complete the blanks.

.....(1) experiment on oat coleoptiles and discovered ......(2)

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**45.** .....(1) system helps in bring about activities of internal organs ......(2) also coordinates in the above function.

**46.** Theyroid : Thyroxine, Ovary : ?



**49.** Gravity : Geotropism, Touch : ?



# **50.** I am a phytohormone. I promote cell division, and sprouting of lateral buds. Who am I?



**51.** I am a phytohormone. I am in gaseous state. I am helpful in ripening of fruit. Who am I?



## 52. I am the first discovered phytohormone. I

promote apical dominance. Who am I?



**53.** I am a human hormone. I am secreted from a gland near to neck. I influence general growth rate and metabolic activity in our body. Who am I ?

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**54.** I am a part of the brain. I am located below the cerebrum and above medulla oblongate. I coordinate voluntary movements initiated by cerebrum. Who am I ?





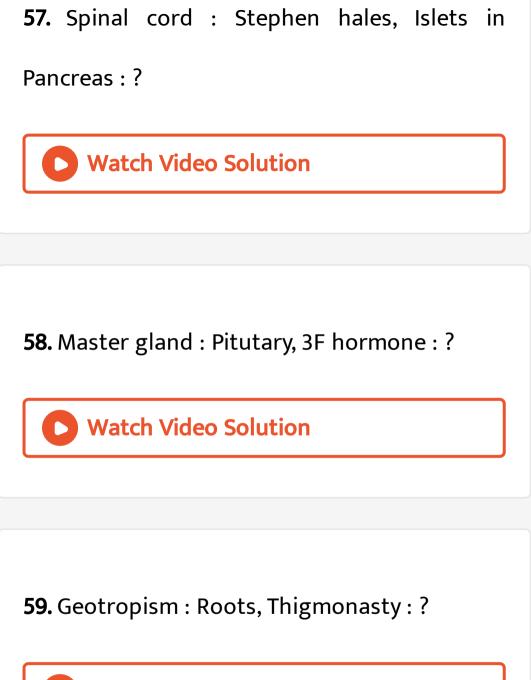
55. I am a part of brain. I am triangular shaped.

I extend from pons to spinal cord. I control

vasomotor activities of our body. Who am I?

Watch Video Solution

56. Oesteocytes : bone , glial cells : ?



60. What type of response is shown by the

plant in the picture due to contact or touch ?





- **61.** Write the correct statement.
- A) Cerebrum is the centre for muscular activities
- B) Diencephalon controls thinking, memory and reasoning

C) Cerebellum maintains posture, equilibrium

and muscle tone.

D) Midbrain coordinates reflexes like

swallowing, coughing, sneezing and vomiting.











- **64.** Identify the mismatched pair.
- 1) Cerebrum- Centre for Cardiac and Vascular activities
- 2) Diencephalon Reflex centre for muscular activities
- 3) Cerebellum Maintains posture



**65.** Identify the mismatched pair.

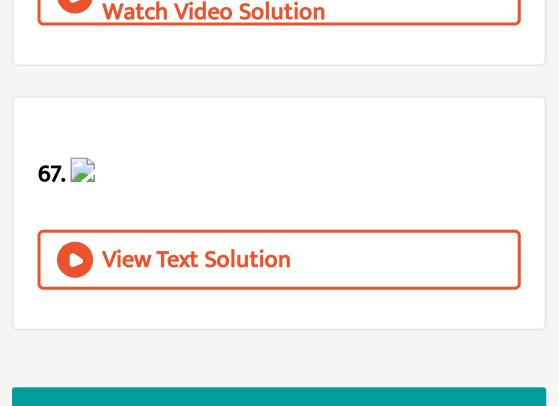
- 1) Forebrain Cerebrum
- 2) Mid brain- Optic lobes
- 3) Hind brain- Diencephalon



**66.** Identify the mismatched pair.

- 1) Roots- Positively geotropic
- 2) Stem- Negatively geotropic
- 3) Sunflower- Thigmonasty





# Preparation Questions For The Examination Purpose

1. What is the structural and functional unit of

nervous system?



**2.** Who transmits nerve impulse across the synapse ?



**3.** What are the small projections on the neuron ?

4. What are the long projections that extends

to different parts of the body in a neuron ?

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5. Name the specialized insulatory sheath of

neuron.



6. Name the irregular intervals of myelin sheath of neuron.
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7. What is the function of schwann cells in a

neuron ?



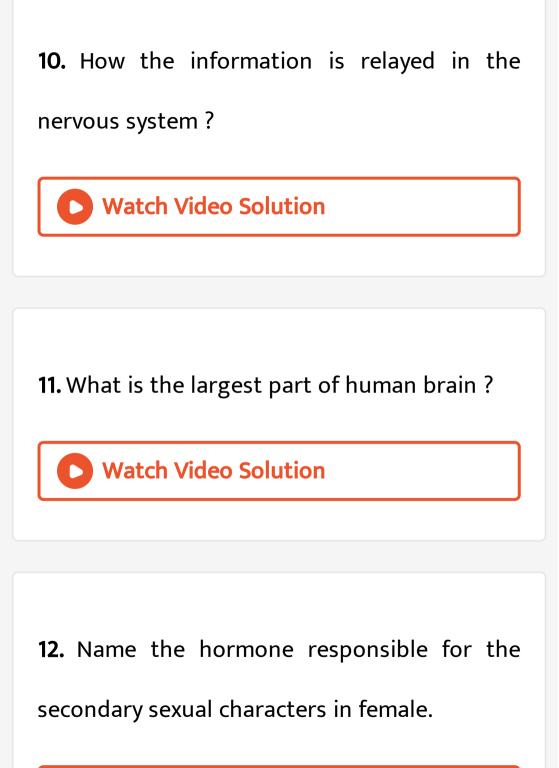
8. How many neurons are present in our

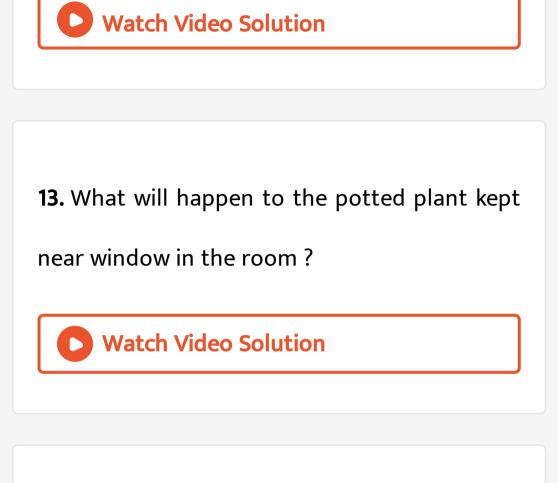
nervous system approximately?

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**9.** What is the functional region of contact between two neurons where information from one region is relayed to another region ?







**14.** How do the leaf movements in Mimosa help to ?

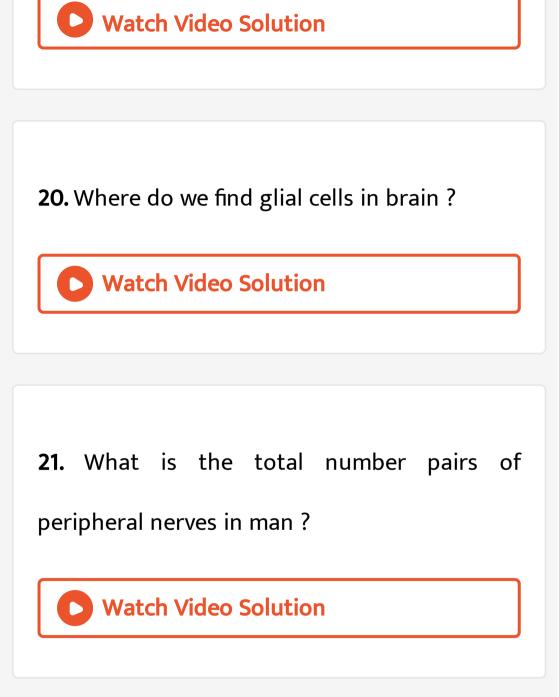
**15.** In Mimosa pudica, thigmotropism helps in protection. What is the use of tendrils in bittergourd ?

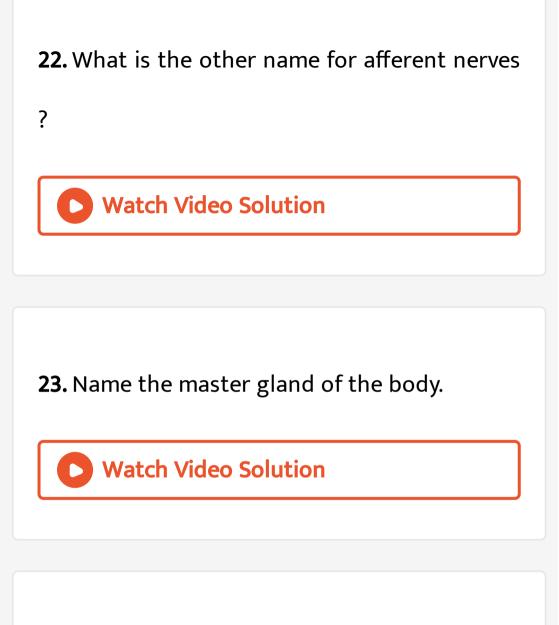
**Watch Video Solution** 

16. Which part of the nervous system play an

important role in reflex arc ?

**17.** Name the phytohormone that promotes cell division. Watch Video Solution **18.** Name the gland that produces Insulin. Watch Video Solution **19.** Which part of the brain helps to maintain posture and equilibrium ?





**24.** What is known as 3F hormone ?

25. Name the endocrine gland which is very

near to trachea ?



26. Name the endocrine gland which is present

on the kidneys.



27. Where do you observe islets of Langer hans



**28.** Name the endocrine gland that is present in the head.



**29.** Raju was severely injured in a road accident. He survived from that but he lost his memory. Which part of the brain might have been damaged ?

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30. Which part of the brain acts as the reflex

centre for muscular activities ?

**31.** Which part of the brain acts as the centre for the cardiac, respiratory and vasomotor activities?



**32.** Ravi can't walk properly after an accident. He is unable to balance his body and walk on a straight line. Which part of his brain might have damaged ?

33. Who conducted experiments on frog to

know the significance of spinal cord ?



34. Who discovered Islets of Langerhans in

pancreas?



**35.** Name the scientists who are associated with the extraction of insulin from degenerated animal pancreas.



#### 36. Name the disease that occurs due to the

low production of Insulin in our body.



37. In what way the hormone somatotrophin

influence our body?

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**38.** Which hormone initiates the secretion of testosterone in males and progesterone in females ?

**39.** What is the function of thyroxine in our

body?





functioning of thyroid gland ?



41. Which hormone controls the 28 days

menstrual cycle in females ?

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42. Which hormone is responsible for the set

in of secondary sexual characters in males ?

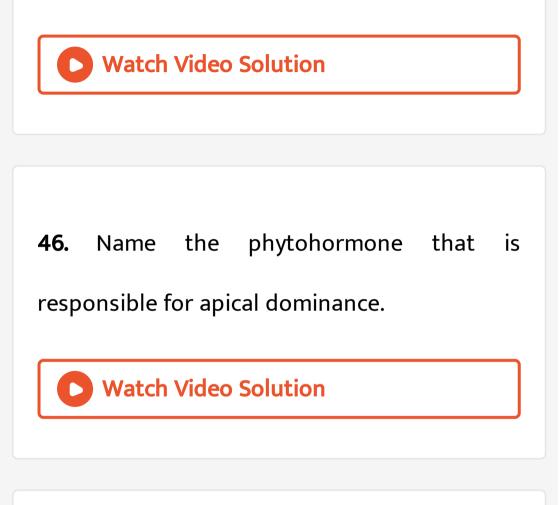
**43.** Which hormone is responsible for the increase in heart beat rate, rise in blood sugar leavels and dialation of the cornary artery and dialation of the pupil of the eye ?

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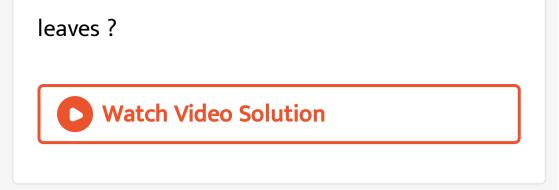
44. Who conducted the experiment on

coleoptile tips of oat seedlings ?

**45.** Who discovered the auxins ?



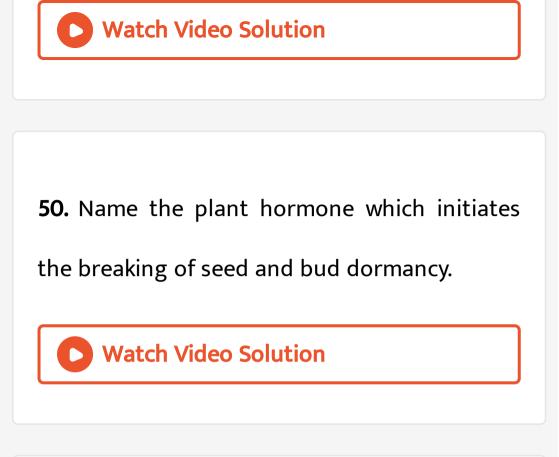
**47.** Which hormone is responsible for cell elongation and differentiation of shoots and



**48.** I am a phytohormone. I promote cell division, and sprouting of lateral buds. Who am I?

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**49.** Name the phytohormone which initiates stem elongation and germination of seeds ?



**51.** Name the plant hormone which Promotes closing of stomata, dormancy of seeds and aging of leaves.

**52.** I am a phytohormone. I am in gaseous state. I am helpful in ripening of fruit. Who am I?



53. Name the phytohormone that promotes

ripening of fruits ?

**54.** Name the part of the plant which is negatively phototropic and positively geotropic.

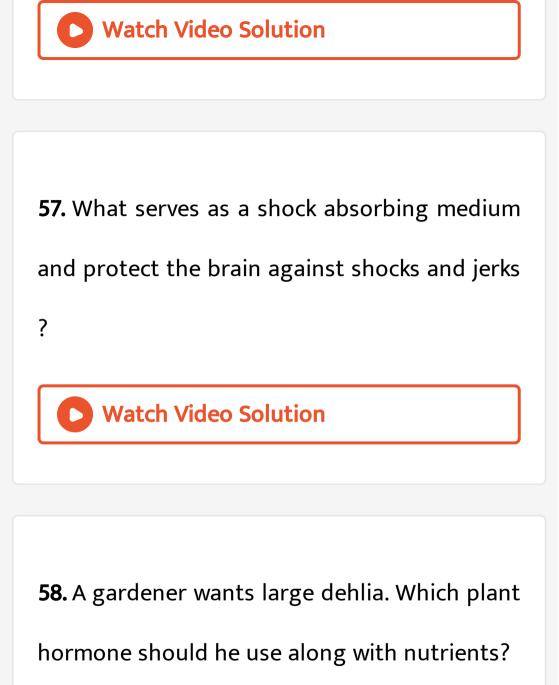
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55. With what name growing of plant tendrils

towards support and wind around is ?

Watch Video Solution

56. Whaat is the meaning of 'Insulin' in Latin?





**59.** Abhijith wants to grow seedless grapes in his garden. Which hormone is helpful for him

to fulfill his desire ?

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60. Which hormone is helpful to store seeds

for a longes time ?

**61.** In a dwarf plant, a farmer wants the branches have to be thickened. What hormone do you suggest farmer ?

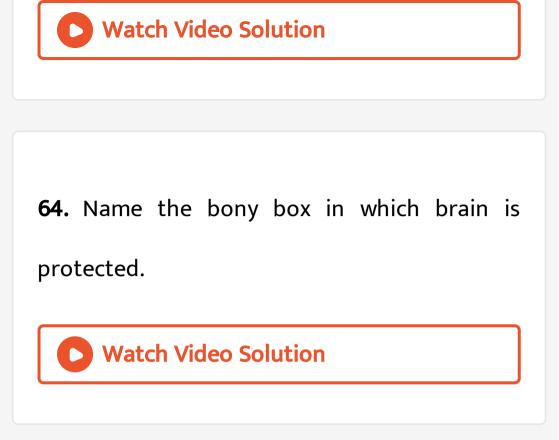
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62. Brain is protected by having protective

membranes. Name them.

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**63.** Give example for reflex arc.



**65.** Name the nervous system formed by the chain of ganglia on either side of vertebral column.

**66.** Give two examples of voluntary actions.



# 67. What are the function of afferent neurons

?



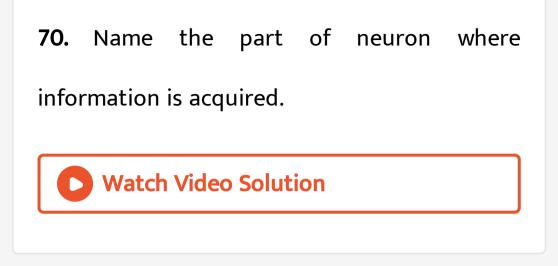
**68.** A part of the hind brain makes possible activities like walking, skating, riding a bicycle and picking up a pencil. Name this part



69. Name the plant hormone which inhibits

growth and causes wilting of leaves.





1 Mark Questions

1. Write two points about insulin from the

information you collected from internet.

2. Write two sentences about insulin hormone using the data collected from your school library.



3. "Plants respond to stimuli". During a project

work on it, from which plants do you collect

information and record it ?

4. Write the name of the nerve given in the

following diagram and write its function.





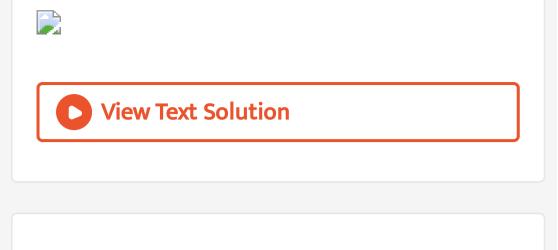
**5.** Write the functions of Spinal cord from the information collected from your school library and from internet.



6. You have performed the activity of Seed Germination in a glass jar in your school lab. You might have observed the growth of shoot and root. What information did you record regarding the shoot growth after a week if the glass jar is tilted and plant kept horixontally.



**7.** Identify the given part in the diagram and write its use.



8. Which part of the brain maintains posture

and equilibrium of the body?

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9. You may eat grapes with no seeds. How are

they formed ? Write some other fruits names.

10. How many types of nerves are there ? What

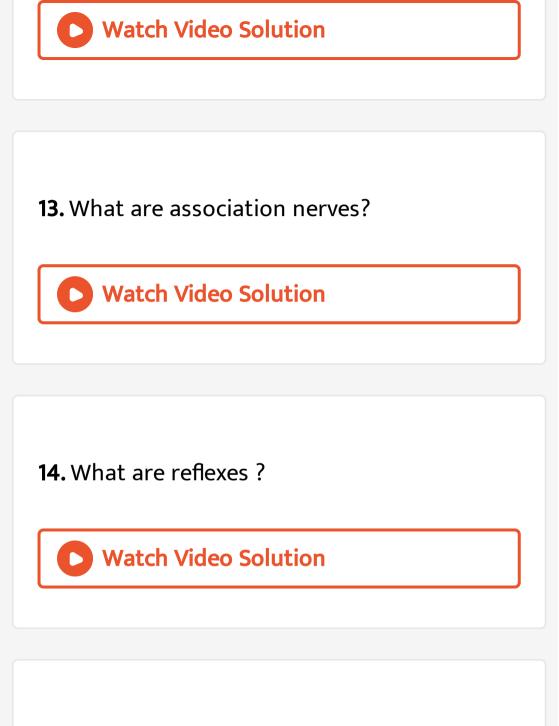
are they?

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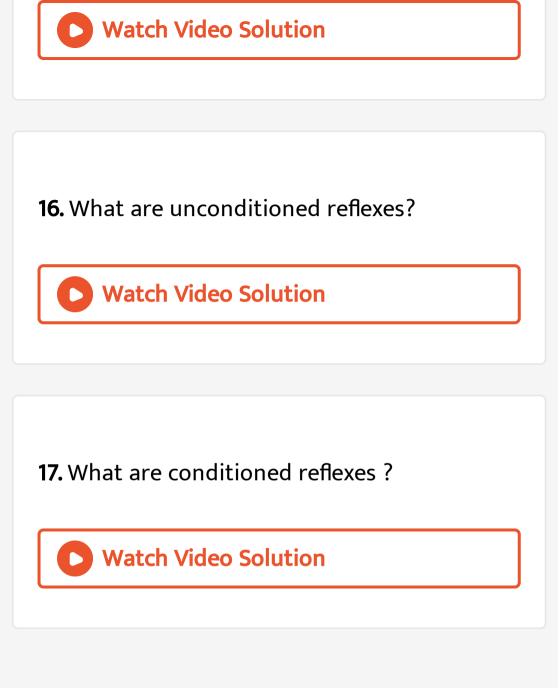
11. What are Afferent neurons?

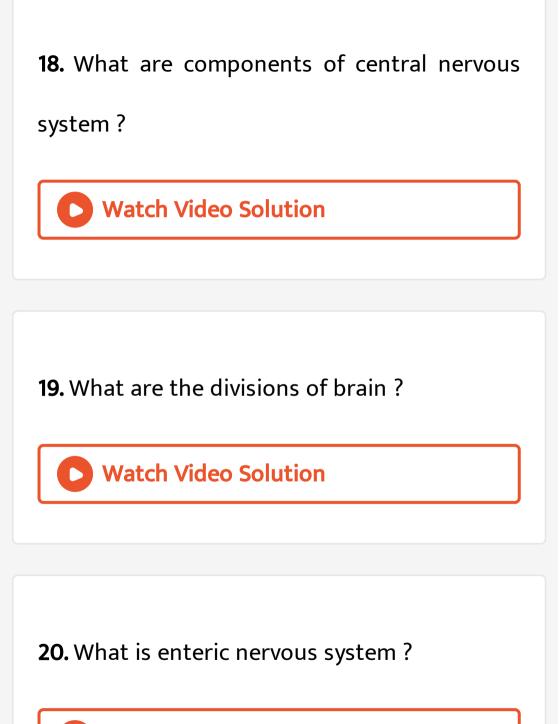
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12. What are Efferent neurons?



15. What is a Reflex arc?





#### **21.** What is sympathetic nervous system ?



# 22. What is parasympathetic nervous system?

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23. Do plants also have control system ?

**24.** What are voluntary actions ? Give examples.



**25.** What are involuntary actions ? Give examples.



**26.** How do reflexes take place in our body ?



27. How many types of actions are controlled

by nervous system in our body?

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**28.** How many types of reflexes are present ?

29. What is the reaction of the body when we

step on a sharp edged object ?



# **30.** Why is a system of control and coordination essential in living organisms ?

31. What will happen when plant is exposed to

unidirectional light ?

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**32.** Taking the example of heart beat, justify the antagonistic (opposite) action of the sympathetic and parasympathetic nerves.



**33.** Why do leaves drop off seasonally?



34. At what speed does nerve transmission

occur?

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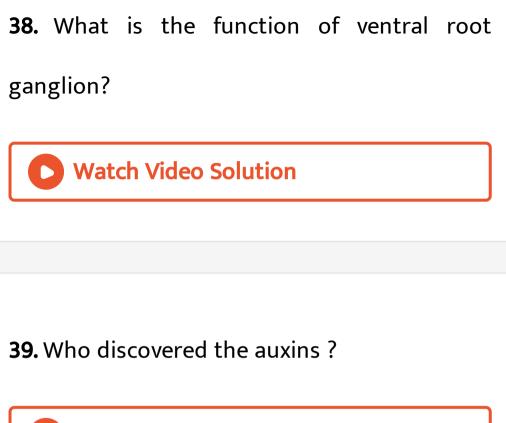
**35.** What is vasomotor?

36. What are dorsal and ventral root ganglion?



**37.** What is the function of dorsal root ganglion ?





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2 Mark Questions

1. What questions will you ask a doctor to

know about endocrine glands ?

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2. What is the significance of the adreanal

gland in the human body?

**3.** How do you feel when you realize that plants respond to the stimuli of their surroundings ?



4. Write the difference between hormone and

enzyme.



5. What will happen if a plant is placed near the window of your classroom ? What is this process called as ?



6. How do you appreciate the role of Spinal

cord in reflex actions?

7. Label a, b, c, d in the diagram given below

and write their functions.





# 8. Name the hormone which influences growth

rate in humans.



**9.** Ram met with an accident. After that he lost the capacity to walk in straight manner and cannot smell anything. Which part of the brain got damaged in the above cases ?



10. Explain two tropic movements with

suitable examples.

11. Name the hormone responsible for the

development of secondary sexual characters.



12. Give some examples of situations in plants

responding to a certain stimulus.

13. Plants shows tropic movements in different

situations. Give examples.

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14. Divide the following into groups. Walking. Blinking of eye lids, heart beat, laughing. Digestion of food and reading. How do you divide them into groups ?

15. How is brain in the human beings protected from injuries ? Watch Video Solution 16. What are the differences between unconditioned and conditioned reflexes ?

17. Write the components of reflex arc and

thheir functions.

Watch Video Solution

**18.** What are plant growth substances ? Give examples.



**19.** What are the functions of cytokinins ?



# 20. What is ABA ? Explain its function in the

plant.

Watch Video Solution

## **21.** What is ethylene ? Explain its action.



22. How do living organisms respond to the

changes in the environment ?

Watch Video Solution

23. Why are some patients of diabetes treated

by giving injections of insulin?

**24.** On touching a hot plate you suddenly withdraw your hand. Which category of neurons become active first and which are next?

Watch Video Solution

25. Give a reason to explain why adrenaline

helps in dealing emergency situations.



26. What is the difference between a reflex

action and walking ?



**27.** Can you imagine how is it happening? Would you think it is responding to a stimulus

?



28. What will happen if intake of iodine in our

diet is low?



**29.** Why is the use of iodised salt advised ?

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30. How will you appreciate the co-ordination

among different organs of your body?



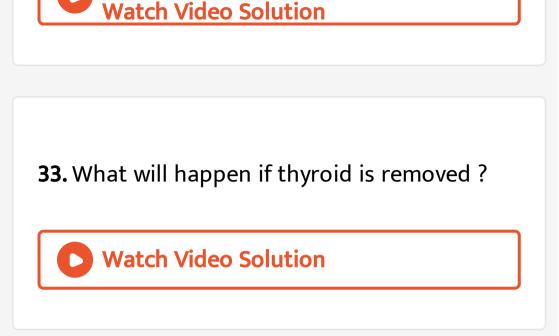
**31.** How does our body maintain blood sugar

level ?

Watch Video Solution

**32.** Many youngsters in our state are dyring with head injury i.e. damage to brain when they meet with bike accidents. Write slogans to motivate people to wear helmet.





# 4 Mark Questions

1. Write in a tabular form the different parts of

human brain and their functions.

2. Tabulate the different parts of the brain and

their functions.



**3.** Read the following table and answer the questions given below.



Write the importance of glands and

hormones.



4. Which hormone is responsible for growth of

bone?



5. What happens if testosterone is not

secreted ?

6. Where does the gland that secretes thyroxine is located ?
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7. Which glands are common in male and female ?



**8.** Observe the following information and answer the following questions.



What do we call the hormones that are

present in plants ?



9. Name the hormones which are helpful in the

growth of the plants.



**10.** Farmers keep carbide powder in between raw mangoes. What might be the reason ? What will be the end result after 3 to 4 days ?



**11.** Plants also respond like animals. Do you agree with this statement ? Support your answer.





This diagram belongs to which system of the

body?



#### **13.** Name the part A and B.



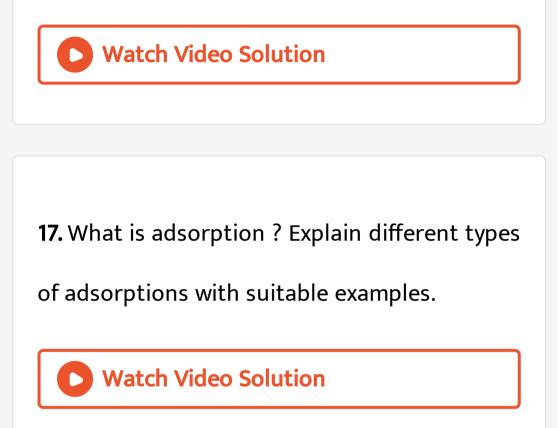
**14.** The part 'C' is endocrinal gland. This is called master gland. What is the name of this gland ?



15. Which part is this diagram is useful to solve

problems and puzzles ?





**18.** Analyse the following information and answer the questions.



# Write two functions of Sympathetic Nervous

System.

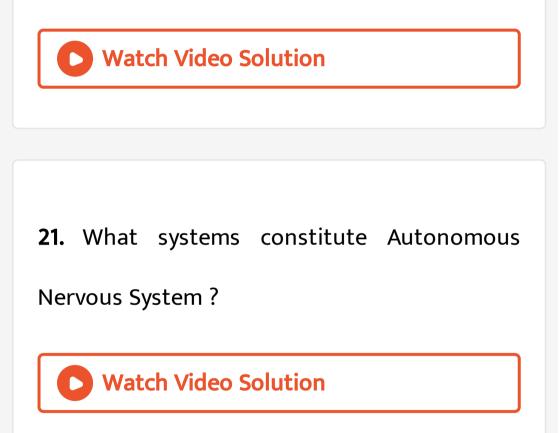
View Text Solution

19. Name two organs that are influenced by

#### Parasympathetic Nervous System.

20. Name the Nervous system mentioned in

the table that increases the blood pressure.



22. Observe the following diagram. What does

it represent ?

Explain the process in a flow-chart.



## 23. The drunken man does not walk properly.



24. Identifies the food items without seeing which are being prepared in the kitchen ?

25. Naveen lost his money purse while coming

to the school. But he is not crying.



26. It is time for lunch.



summer.

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**28.** Catching the ball perfectly.

**29.** There may be a drainage behind the house.

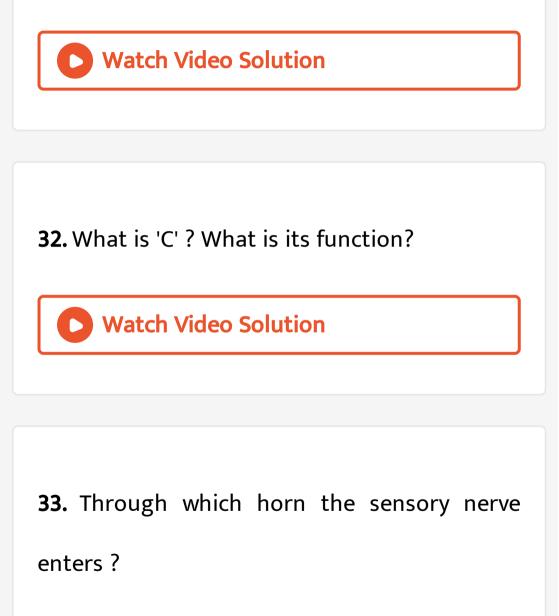


**30.** Look at the picture and answer the questions :

To which system does the diagram belong ?

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**31.** What is the name of A,B parts ?



**34.** Observe the following table and answer the questions.



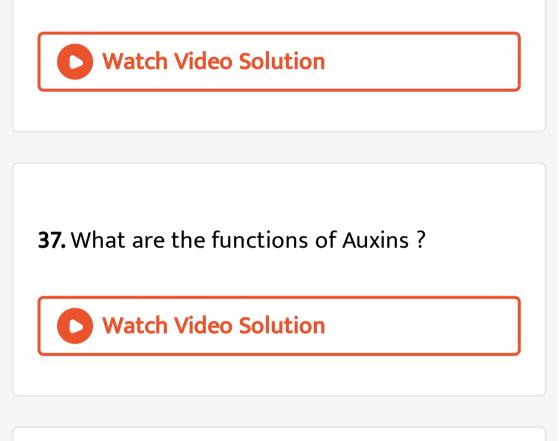
On what basis the above classification done ?

View Text Solution

**35.** From which gland, Adrenalin released ?

36. Which hormone is responsible for closing

of stomata ?



**38.** Karthik is suffering from excess sugar in urine and Varun is suffering from repeated

dilute urination. What are the reasons for

these diseases ? Explain.



**39.** Write contrasts and comparisons of the style of response in plants and animals to the stimuli.



**40.** Read the below paragraph and write answers.

What does this information shows ?

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**41.** Read the below paragraph and write answers.

There is systematic method in showing response to stimuli. There is different stages

in it. First stage starts with the response recognizing the changes in out side or inside of the body atmosphere with recognizing the stimuli. Transmitting the received information is second stage, analysing that information is third stage and showing correct responce to that stimuli is the stage.

b) Convert the above information into flow chart.

**42.** Read the below paragraph and write answers.

There is systematic method in showing response to stimuli. There is different stages in it. First stage starts with the response recognising the changes in out side or inside of the body atmosphere sith recognising the stimuli. Transmitting the recieved information is second stage, analysing that information is third stage and showing correct responce to that stimuli is the stage.

c) Write about the mechanism that conducts

this action.



43. See the below action. What does it

indicate? Explain with an example.





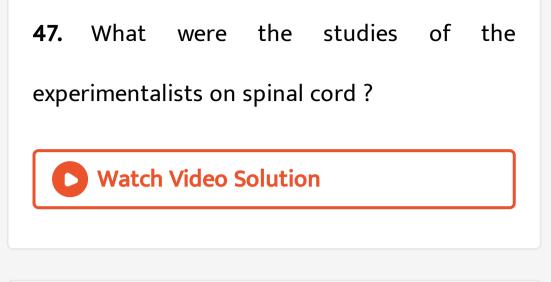
**44.** Describe the structure of brain.



**45.** All the activities of human are controlled by a vital organ. With the help of neat labelled diagram describe its structure.



**46.** Describe the structure of spinal cord.



48. What do you understand by peripheral

nervous system?

49. Give an example of autonomous nervous system.

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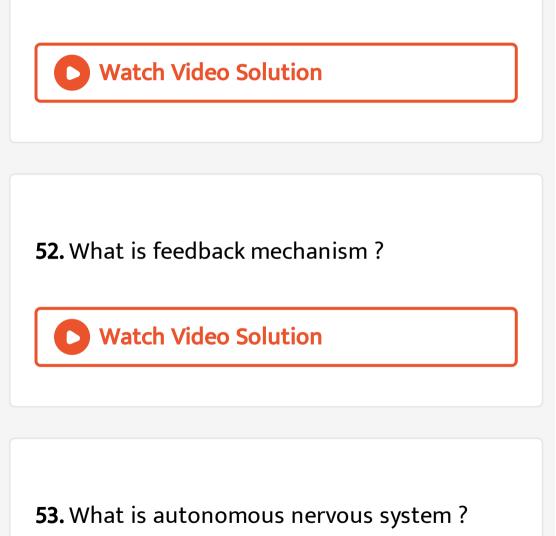
## 50. Explain how coordination takes place

## without nerves by the story of Insulin.



51. What are endocrine glands ? Mention their

functions.



**54.** Explain two tropic movements with suitable examples.



55. On the basis of pathways, how many types

of nerves are there ?



56. How does a nerve impulse travel through

the body?

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**57.** Can you imagine how is it happening? Would you think it is responding to a stimulus

?

58. What happens if testis and ovary does not

function properly?

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**59.** If you get a chance to met a neurologist/neurophysician what type of questions you will ask to keep your Nervous System healthy ?

**60.** Write the following items about the experiment you have done to show that plants move to light.

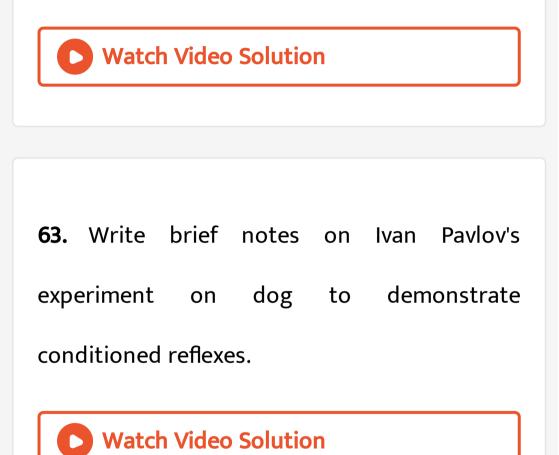
Used equipments



## 61. Method of the experiments



**62.** Observed results.



**64.** What experimental procedure will you follow to prove phototropism and geotropism in germinating seeds ?



**65.** Rangalah is not feeling well. The following

are the results of tests. Analyse the table.

Write answers for the following questions.



How can you state the Rangaiah is diabetic?





## **66.** What are the tests to know about Bilirubin?



**67.** Rangaiah is not feeling well. The following results have come in the tests. Analyse the table.Write answers for the following questions.

Tests	Present status	Normal range
Blood test :		
1. Blood pressure	160/90	120/80
2. Glucose (fasting)	120	60 - 100
3. Glucose (post lunch)	220	160 - 180
4. Bilirubin	10	0.1 - 0.8
Urine test :		
1.24 hours proteins	150 mg	100 mg
2. Sodium	140	125 - 250

iii) What do you understand from the above

report?



68. What questions do you ask the doctor on

the above report ?

**69.** Write the list of questions to ask the manager of the garden of your village to know Which plants are grown through grafting.

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70. Explain some major plant hormones and

their functions in a tabular form.

71. Observe the information from above table

and answer the questions given below.

Which hormone is responsible for reduction of

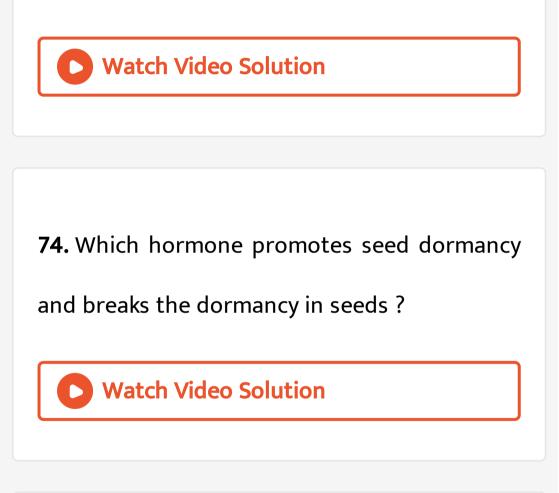
transpiration in plants ?

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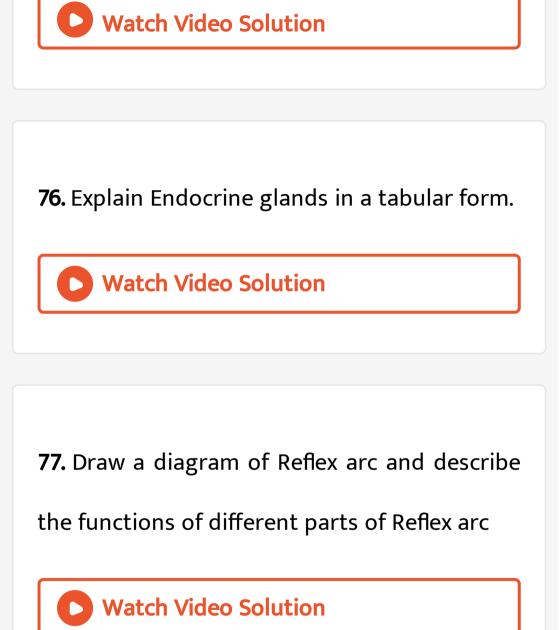
72. What are the hormones that help in the

growth of plants ?

**73.** What is the use of Ethylene in plants ?



**75.** Which hormones help in delaying the ageing in vegetable leaves like spinach ?



78. Draw the diagram of afferent nerve and

label the parts.

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79. Draw the neuron which carries messages

from brain/spinal cord to muscles.

80. The diagram given below depicts the cross

-section of the spinal cord. Label the parts.



