BIOLOGY

BOOKS - CHETANA PUBLICATION

Life Processes In Living Organisms

Example

1. How do the digestive system and respiratory system work ?

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2. Previously you have performed the activity of observing a branch covered in a plastic bag. What did you observe in that activity?

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3. Select the odd man out:

Skin, Brain, Kidneys, Lungs.

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4. Select the odd man out:

Gum, Resin, Urea, Latex

Watch Video Solution

5. Select the odd man out:

Gibberellin, Auxin, Thyroxine, Cytokinin.

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6. Select the odd man out:

Dendrite, Cell body, Axon, Synapse.

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7. Select the odd man out:

Thyroxine, Calcitonin, Insulin, Auxin.

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8. Complete the Analogy:

Water : Xylem : : Food : ..... .

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9. Complete the Analogy:

Movement of root system : Gravitropic : :

Movement of shoot system: ..... .

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10. Complete the Analogy:

Brain:CranialCavity::SpinalCord : ..... .

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11. Complete the Analogy:

Cavities of the brain : Ventricles : : Cavities of the spinal code: ..... .

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12. Complete the Analogy:

Involuntary activities : Medulla oblongata : :Balance of the body: ..... .

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13. Complete the Analogy:

Stem elongation: Gibberellin : : Cell division : ..... .

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14. Complete the Analogy:

Control of voluntary movements : Cerebrum : :

Co-ordination of voluntary movements: ..... .

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15. Complete the Analogy:

Converts glucose to glycogen : Insulin : :

Converts glycogen to glucose: ..... .

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16. Complete the Analogy.

Seconday sexual characters in males: Testosterone :: Secondary sexual characters in females: ..... .

Watch Video Solution

17. Match the columns:

Column 'A'	Column 'B'
(1) Growth of pollen tube towards ovules	(a) Gravitropic movement
(2) Growth of shoot system	(b) Chemotropic movement
(3) Growth of root system	(c) Phototropic movement
(4) Growth towards water	(d) Growth-irrelevant movement
	(e) Hydrotropic movement

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18. Match the columns:

Column 'A'	Column 'B'
(1) Gibberellins	(a) Enlargement of cells
(2) Cytokinins	(b) Helps in stem elogation
(3) Abscisic acid	(c) Cell division
(4) Auxin	(d) Wilting of leaf

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19. Match the columns:

Column 'A'	Column 'B'
(1) Cerebrum	(a) Control of involuntary activities
(2) Cerebelleum	(b) Decision - making, memory and intellectual activities.
(3) Medulla oblongata	(c) Centre for co-ordination of reflex actions
(4) Spinal cord	(d) Maintaining body's balance

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20. State whether the following statements are true or false. Correct the false statements.

Plants need less energy as compared to animals.

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21. State whether the following statements are true or false. Correct the false statements.

Xylem conducts food whereas phloem conducts water.

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22. State whether the following statements are true or false. Correct the false statements.

The loss of water from the plants is known as translocation.

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23. State whether the following statements are true or false. Correct the false statements.

Calcium oxalate crystals present in some plants are called resins.

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24. State whether the following statements are true or false. Correct the false statements.

Root pressure helps to push the water up in plants during night time.

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25. State whether the following statements are true or false. Correct the false statements.

Translocation is carried out by phloem in downward direction.

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26. State whether the following statements are true or false. Correct the false statements.

In unicellular organisms, waste materials are directly eliminated across the cell surface.

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27. State whether the following statements are true or false. Correct the false statements.

Urea is produced in the liver.

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28. State whether the following statements are true or false. Correct the false statements.

Systematic regulation of different processes is called co-ordination.

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29. State whether the following statements are true or false. Correct the false statements.

A hormone auxin produced in the apical part of the shoot helps in enlargement of cells.

Watch Video Solution

30. State whether the following statements are true or false. Correct the false statements.

Gibberellin helps in prevention and retardation of growth, leaf wilting etc.

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31. State whether the following statements are true or false. Correct the false statements.

The movement shown by venus fly trap while trapping an insect is a growth relevant movement.

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32. State whether the following statements are true or false. Correct the false statements.

The lotus flower opens during night time while that of tuberose (polyanthus) opens during day time.

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33. State whether the following statements are true or false. Correct the false statements.

Sensory neurons conduct impulses from the

brain and the spinal cord to effector organs like muscles or glands.

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34. State whether the following statements are true or false. Correct the false statements.

There are 31 pairs of cranial nerves.

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35. State whether the following statements are true or false. Correct the false statements.

Activities like heart beat, blood circulation, breathing, sneezing, etc. are controlled by cerebellum.

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36. State whether the following statements are true or false. Correct the false statements.

Spinal nerves are associated with head, thorax and abdomen.

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37. State whether the following statements are true or false. Correct the false statements.

Nerve impulses are slow and long lasting whereas action of hormones is fast and short lived.

Watch Video Solution

38. State whether the following statements are true or false. Correct the false statements.

Reflex actions are controlled by cerebellum.

Watch Video Solution

39. State whether the following statements are true or false. Correct the false statements.

Thyroid stimulating hormone is secreted by the pituitary gland.

Watch Video Solution

40. State whether the following statements are true or false. Correct the false statements.

The hormone thymosin is secreted by the thyroid gland.

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41. State whether the following statements are true or false. Correct the false statements.

Parathormone controls metabolism of calcium and phosphorus.

Watch Video Solution

42. State whether the following statements are true or false. Correct the false statements. The right kidney is slightly lower than the left kidney.

Watch Video Solution

43. Name the structural and funcation unit of nervous system.

Watch Video Solution

44. Name the following

The network of capillaries in the Bowman's capsule.

Watch Video Solution

45. Name the following:

The minute space between two adjacent neurons.

Watch Video Solution

46. Name the following:

The special cells which bring about control and co-ordination.

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47. Name the following:

The cavities present in various parts of the brain.

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48. Name the following:

The long tubular cavity of the spinal cord.

Watch Video Solution

49. Name the following:

The thread like fibrous structure at the end of the spinal cord.

Watch Video Solution

50. Give scientific reasons:

It is necessary to remove harmful and waste substances from the body.

Watch Video Solution

51. Give scientific reasons:

In plants like Touch-me-not (Mimosa), movement also occurs at the places other than where it has been touched.

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52. Give scientific reasons:

Endocrine glands are also called ductless glands.

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53. Define the following:

Transportation

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54. Define the following:

Control

Watch Video Solution

55. Define the following:

Coordination

Watch Video Solution

56. Define the following:

Tropism or Tropic movement

Watch Video Solution

57. Define the following:

Excretion

Watch Video Solution

58. Define the following:

Dialysis

Watch Video Solution

59. Define the following:

Reflex action

Watch Video Solution

60. Define the following:

Homeostasis

Watch Video Solution

61. Define the following:

Tropism or Tropic movement

Watch Video Solution

62. Distinguish between:

Excretory system of plants and animals.

Watch Video Solution

63. Distinguish between:

Nervous control and Chemical control

Watch Video Solution

64. Distinguish between:

Growth relevant movements and growth irrelevant movements

Watch Video Solution

65. Distinguish between cerebrum and cerebellum.

Watch Video Solution

66. Write short notes:

Root Pressure

Watch Video Solution

67. Write short notes:

Transpiration

Watch Video Solution

68. Write short notes:

Nerve cell

Watch Video Solution

69. Write short notes:

Reflex action

Watch Video Solution

70. Write short notes:

Spinal cord

Watch Video Solution

71. Write short notes:

Dialysis

Watch Video Solution

72. Draw neat and labelled diagram:

Human endocrine glands

Watch Video Solution

73. Draw neat and labelled diagram:

Human Brain

Watch Video Solution

74. Draw neat and labelled diagram:

Nephron

Watch Video Solution

75. Draw neat and labelled diagram:

Nerve cell

Watch Video Solution

76. Draw neat and labelled diagram:

Human excretory system

Watch Video Solution

77. Draw neat and labelled diagram:

Vertical Section of Kidney

Watch Video Solution

78. Draw neat and labelled diagram:

Reflex action

Watch Video Solution

79. Name the hormones of the following endocrine glands and the fundtion of each:

Pituitary:

Watch Video Solution

80. Name the hormones of the following endocrine glands and the fundtion of each:

Thyroid

Watch Video Solution

81. Name the hormones of the following endocrine glands and the function of each:

Adrenal

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82. Name the hormones of the following endocrine glands and the fundtion of each:

Thymus

Watch Video Solution

83. Name the hormones of the following endocrine glands and the fundtion of each:

Testis

Watch Video Solution

84. Name the hormones of the following endocrine glands and the function of each:

Ovary

Watch Video Solution

85. Name the hormones of the following endocrine glands and the function of each:

Parathyroid

Watch Video Solution

86. Name the hormones of the following endocrine glands and the fundtion of each:

Pancreas

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87. State the functions of different parts of the brain.

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88. Which are the sensory organs of an organism? What is their function?

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89. Where are the gustatory and olfactory nerves to be found?

Watch Video Solution

90. How is excretion in plants useful to human beings?

Watch Video Solution

91. How do plants bring about movements in them?

Watch Video Solution

92. How does excretion occur in human being?

Watch Video Solution

93. What are growth-irrelevant movements? Give examples.

Watch Video Solution

94. Which are the different types of nerve cells or neurons?

OR

How are nerve cells classified according to their functions?

Watch Video Solution

95. What are the different parts of the human nervous system?

Watch Video Solution

96. Describe the structure of the central nervous system.

Watch Video Solution

97. Which are the two types of peripheral nerves?

Watch Video Solution

98. How do plants get rid of their excretory products?

Watch Video Solution

99. Why do we eat fruits and vegetables? Do the plants also need minerals like we do?

Watch Video Solution

100. From where do plants get inorganic substances other than carbon dioxide and oxygen?

Watch Video Solution

101. At least a small quantity of garbage or waste is produced every day in each house. What will happen if you keep this garbage for many days in your house?

Watch Video Solution

102. Sometimes, while eating we bite our own finger or tongue by mistake.

Watch Video Solution

103. Sometimes, we choke while eating in a hurry.

Watch Video Solution

104. Injury to the medulla oblongata causes sudden death-Explain.

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105. You may have seen how a drunken person struggles to maintain his body balance. An excess of alcohol in the body causes one to lose control over it. Why does this happen? Find out the reason with help of the internet.

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106. Why does this happen?

Leaves of plants fall off in a particular season.

Watch Video Solution

107. Why does this happen?

Fruits, flowers fall off after a certain period of time.

Watch Video Solution

108. Why does this happen?

Substances like resin, gum, etc. are given out of the plant body.

Watch Video Solution

109. Which waste products are produced in our body through metabolic activities?

Watch Video Solution

110. As compared to the monsoons and winter a very small quantity of urine is produced in the summer season. Why is it so?

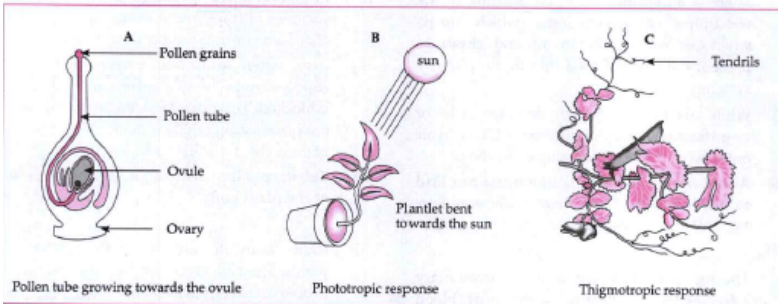
Watch Video Solution

111. In adults, the process of urination is under their control but not in infants. Why is it so?

Watch Video Solution

112. Answer the following questions:

Observe the following figures carefully.



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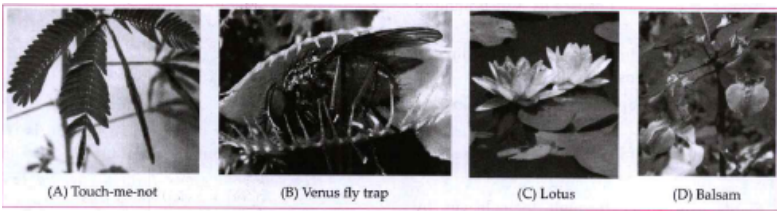
113. Observe the pictures carefully and think about them.



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114. As you watch the match being played on your school ground, you will se the control and co-ordination among the movements of

the players. Make a list of all such different actions.

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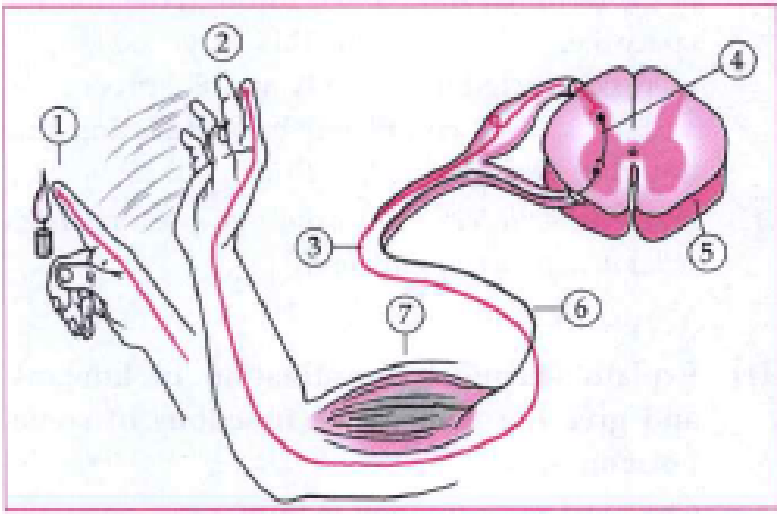
115. Observe the figures carefully and as per the numbers in that figure, answer the following question.



What is happening at 1 and 2?

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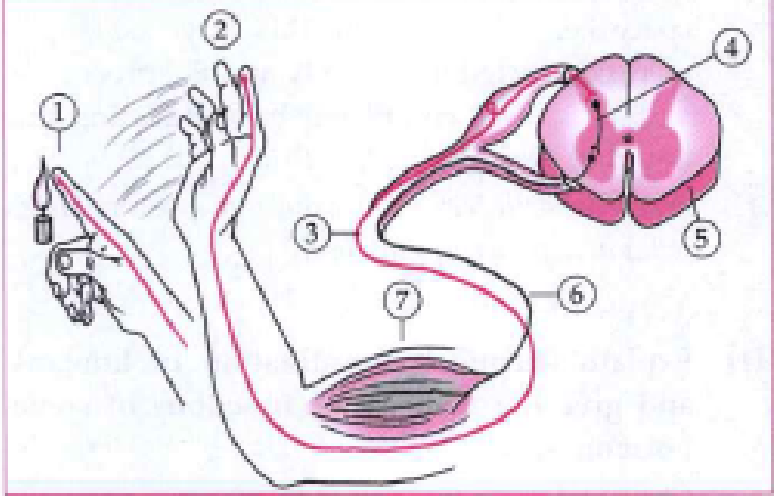
116. Observe the figures carefully and as per the numbers in that figure, answer the following question.



Which nerve carried the impulse to the point marked 3 ? In which direction is it conducting the impulse?

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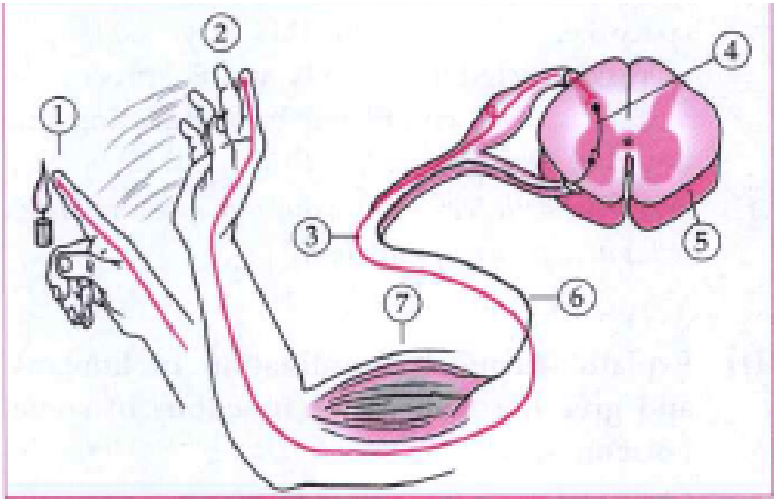
117. Observe the figures carefully and as per the numbers in that figure, answer the

following question.



Which is the nerve shown by 4?

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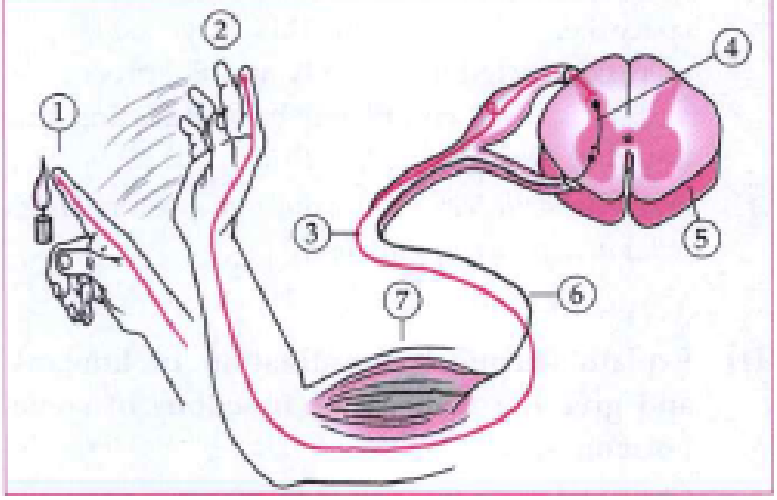
118. Observe the figures carefully and as per the numbers in that figure, answer the following question.



Which is the organ marked as 5?

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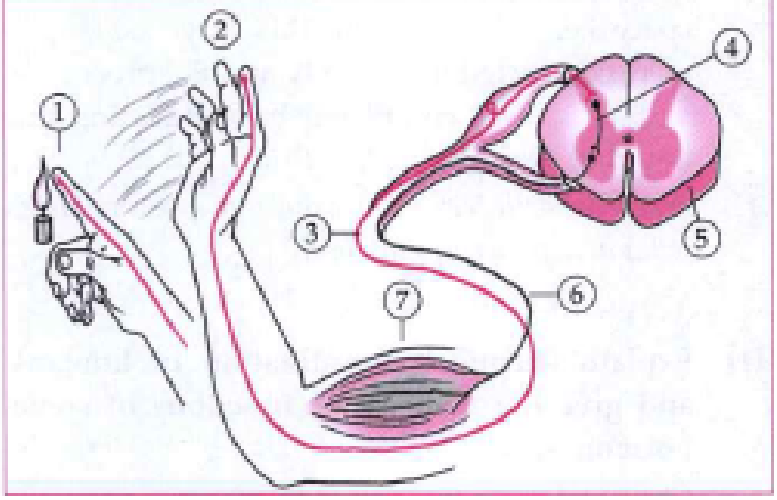
119. Observe the figures carefully and as per the numbers in that figure, answer the following question.



At 6, which nerve is condcuting the response impulse?

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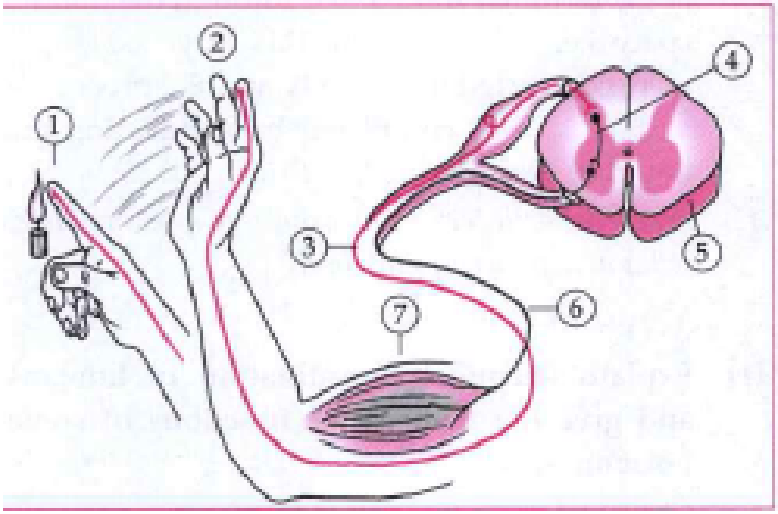
120. Sketch and label



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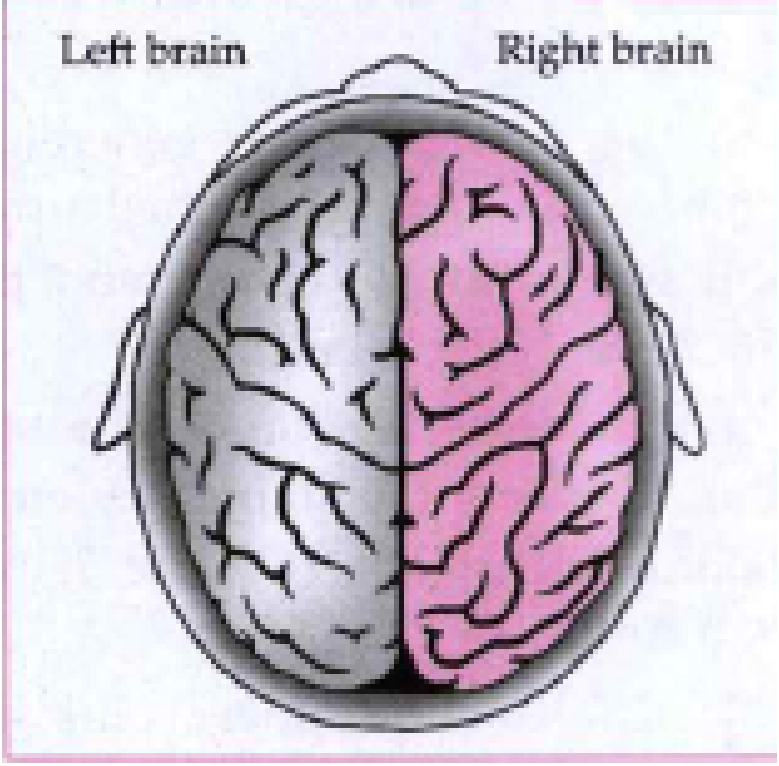
121. Observe the figure and list down functions for 'A' and 'B'



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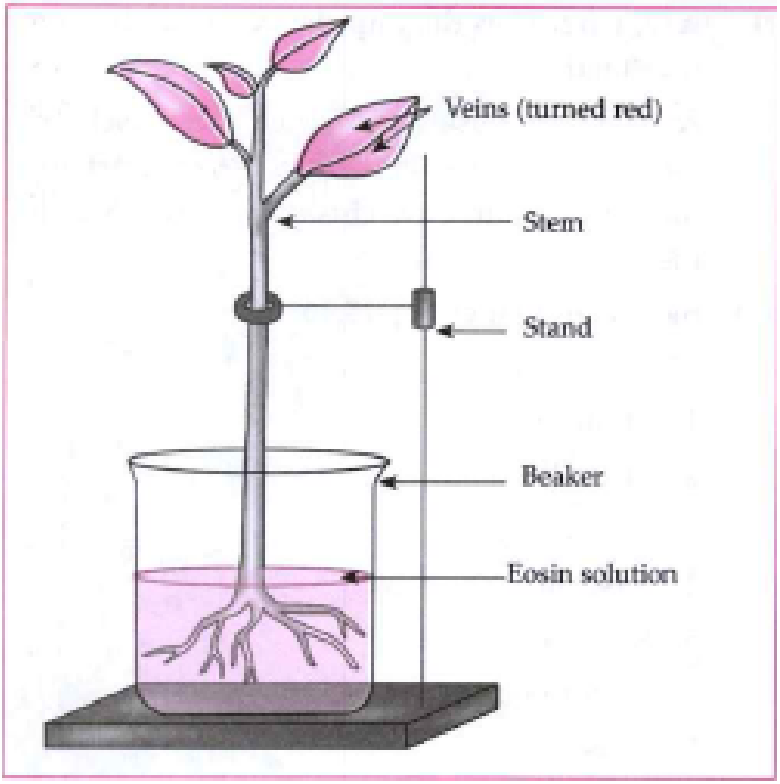
122. Take a small plant like balsam or tuberose with its roots intact. Wash and clean its roots. As whond in the fig, keep it in the water

containing a stain like safranin or eosin. Observe the stem and the veins of the leaves after 2-3 hours.



Watch Video Solution

123. Take a transverse section of the stem of a plant and observe the stained xylem under a compound microscope.

Watch Video Solution

124. Observe your mother while she elephant's foot (Amorphophallus) or arum leaves. Your hands may also begin to itch if you try to cut these leaves. Why does this happen? Try to find out. Ask your mother what she does to prevent the itching.

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125. The milk was on the stove. Resika was engrossed watching television. She smelled something burning. She ran towards the kitchen. The milk was boiling over. She held the vessel with her bare hands but, screaming, she let it go at onec. This activity was controlled by .....cells. Special ends of .....in these cells colected the information, from where it was transfered to the..... and then towards the terminal end of the ..... . The chemicals

produced aty the terminal end passed through the minute space i.e. ..... . In this way, ... were conducted in the body and the process of .....was completed by conducting the impulses from.....to.....

(Nerve, muscle cell, impulse, dendrite, synapse, impulses, reflex action, cell body)

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126. Explain chemical co-ordination in humans and give the names and functions of some

hormones.

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127. Explain co-ordinatin is plants with the help of suitable examples.

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128. What is meant by co-ordination?

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129. Describe the transportation system in plants.

Watch Video Solution

130. Explain how food and other substances are transported in plants? OR

Explain translocation in plants.

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131. What is tropic movements? Describe the different types of tropic movements. OR What are growth relevant movements? Describe the different types of growth relevant movemtns.

Watch Video Solution

132. Write short note on : Human Brain

Watch Video Solution

133. Describe the conduction of nerve impulse in the neuron.

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Exercise

1. The transport of food produced in leaves to each cell in the plant body is called .....

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2. Kidneys filter blood about .....times every day.

Watch Video Solution

3. About .....of blood is sent through the dialysis mechine at one times.

500ml

5l

200ml

400ml

A. 500ml

B. 5l

C. 200ml

D. 400ml

Answer:

Watch Video Solution

4. The movement of plant towards the source of light is called .....movement.

chemotropic

hydrotropic

phototropic

gravitropic

A. chemotropic

B. hydrotropic

C. phototropic

D. gravitropic

Answer:

Watch Video Solution

5. The movement of root system towards stimulus of gravity is called.....movement.

phototropic

gravitropic

hydrotropic

chemotropic

A. phototropic

B. gravitropic

C. hydrotropic

D. chemotropic

Answer:

Watch Video Solution

6. The movement of root system towards stimulus of water is called .....movement.

phototropic

gravitropic

hydrotropic

chemotropic

A. phototropic

B. gravitropic

C. hydrotropic

D. chemotropic

Answer:

Watch Video Solution

7. Hormone.....helps in cell division.

Auxin

Gibberellin

Cytokinin

Abscisic acid

A. Auxin

B. Gibberellin

C. Cytokinin

D. Abscisic acid

Answer:

Watch Video Solution

8. The hormone .....is effective in prevention and retardation of growth, lead wilting, etc.

Auxin

Cytokinin

Gibberellin

Abscisic acid

A. Auxin

B. Cytokinin

C. Gibberellin

D. Abscisic acid

Answer:

Watch Video Solution

9. .....neurons conduct impulses from the sensory organs to the brain and the spinal cord.

Sensory

Motor

Association

All of these

A. Sensory

B. Motor

C. Association

D. All of these

Answer:

Watch Video Solution

10. The brain of an adult human weighs about ..... .

500 - 600 grams

2-3 kilograms

1300-1400 grams

1500-1600 grams

A. 500 - 600 grams

B. 2-3 kilograms

C. 1300-1400 grams

D. 1500-1600 grams

Answer:

Watch Video Solution

11. .....is the largest part of the brain.

Cerebrum

Cerebellum

Medulla oblongata

Spinal cord

A. Cerebrum

B. Cerebellum

C. Medulla oblongata

D. Spinal cord

Answer:

Watch Video Solution

12. There are two triangular swollen structure called .....on the upper side of the medulla oblongata.

Ventricles

Meninges

Pyramids

Pons

A. Ventricles

B. Meninges

C. Pyramids

D. Pons

Answer:

13. Control of voluntary movements is done by ..... .

Cerebrum

Cerebellum

Medulla oblongata

Spinal cord

A. Cerebrum

B. Cerebellum

C. Medulla oblongata

D. Spinal cord

Answer:

Watch Video Solution

14. Co-ordination of voluntary movemtns is done by ..... .

Cerebrum

Cerebellum

Medulla oblongata

Spinal cord

A. Cerebrum

B. Cerebellum

C. Medulla oblongata

D. Spinal cord

Answer:

 Watch Video Solution

15. Control of involuntary activities like the beating of the heart, blood circulation, breathing etc. are controlled by ..... .

Spinal cord

Cerebrum

Cerebellum

Medulla oblongata

A. Spinal cord

B. Cerebrum

C. Cerebellum

D. Medulla oblongata

Answer:

Watch Video Solution

16. The function of cerebrum is to ..... .

control of voluntary movements.

co-ordination of voluntary movements

control of involuntary activities

maintaining the body balance

A. control of voluntary movements.

B. co-ordination of voluntary movements

C. control of involuntary activities

D. maintaining the body balance

Answer:

 Watch Video Solution

17. The function of cerebrum is to ..... .

control of voluntary movements.

co-ordination of voluntary movements

control of involuntary activities

maintaining the body balance

A. to control of voluntary movements

B. to maintain the body balance

C. to control of involuntary activities

D. to co-ordinate of voluntary movements

Answer:

Watch Video Solution

18. Hormone .....stimulates the liver to convert excess blood glucose into glycogen.

Glucagon

insulin

Somatostatin

Pancreatic polypeptide

A. Glucagon

B. insulin

C. Somatostatin

D. Pancreatic polypeptide

Answer:

 Watch Video Solution

19. Hormone whose secretion increase in emotional disturbances

A. Thyroxine

B. Parathormone

C. Adrenalin and Nor adrenalin

D. Somatostatin

Answer:

Watch Video Solution

20. .....controls menstrual cycle and ovulation.

Prolactin

Oxytocin

Luteinizing hormone

Progesterone

A. Prolactin

B. Oxytocin

C. Luteinizing hormone

D. Progesterone

Answer:

Watch Video Solution

21. .....stimulates growth of secondary sexual characteristics in men.

Thymosin

Testosterone

Oestrogen

Thyroxine

A. Thymosin

B. Testosterone

C. Oestrogen

D. Thyroxine

Answer:

Watch Video Solution

22. .....occurs through stomata.

Translocation

Perspiratin

Transpiration

Conduction

A. Translocation

B. Perspiratin

C. Transpiration

D. Conduction

Answer:

Watch Video Solution

23. .....performs the important role of pushing the water up during the night time.

Translocation

Root pressure

Transpiration pull

None of these

A. Translocation

B. Root pressure

C. Transpiration pull

D. None of these

Answer:

Watch Video Solution

24. In plants, gaseous substances are given out by .....

Root pressure

Osmosis

Diffusion

Translocation

A. Root pressure

B. Osmosis

C. Diffusion

D. Translocation

Answer:

Watch Video Solution

25. Each kidney has approximately .....nephtorns

1 lakh

10000

10 lakh

50 lakh

A. 1 lakh

B. 10000

C. 10 lakh

D. 50 lakh

Answer:

26. Insulin is secreated by the .....of the pancreas.

Alpha cells

Beta cells

Delta cells

F cells

A. Alpha cells

B. Beta cells

C. Delta cells

D. F cells

Answer:

Watch Video Solution

27. The transport of food produced in leaves to each cell in the plant body is called .....

A. Transpiration

B. Root pressure

C. Translocation

D. Ascent of sap

Answer:

Watch Video Solution

28. Co-ordination of voluntary movemtns is done by ..... .

Cerebrum

Cerebellum

Medulla oblongata

Spinal cord

A. Cerebrum

B. Cerebellum

C. Medulla oblongata

D. Spinal cord

Answer:

Watch Video Solution

29. Hormone .....controls behaviour during crisis and emotional situation.

Thyroxine

Parathormone

Adrenalin and Nor adrenalin

Somatostatin

A. Thyroxine

B. Parathormone

C. Adrenalin and Nor adrenalin

D. Somatostatin

Answer:

Watch Video Solution

30. .....stimulates growth of secondary sexual characteristics in men.

Thymosin

Testosterone

Oestrogen

Thyroxine

A. Thymosin

B. Testosterone

C. Oestrogen

D. Thyroxine

Answer:

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31. Match the columns:

Column 'A'	Column 'B'
(1) Growth of pollen tube towards ovules	(a) Gravitropic movement
(2) Growth of shoot system	(b) Chemotropic movement
(3) Growth of root system	(c) Phototropic movement
(4) Growth towards water	(d) Growth-irrelevant movement
	(e) Hydrotropic movement

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32. Select the odd man out:

Skin, Brain, Kidneys, Lungs.

Watch Video Solution

33. Select the odd man out:

Dendrite, Cell body, Axon, Synapse.

Watch Video Solution

34. Give scientific reasons:

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Watch Video Solution

35. Give scientific reasons:

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Watch Video Solution

36. Give scientific reasons:

Endocrine glands are also called ductless glands.

Watch Video Solution

37. Distinguish between:

Excretory system of plants and animals.

Watch Video Solution

38. Write short notes:

Root Pressure

Watch Video Solution

39. Write short notes:

Reflex action

Watch Video Solution

40. State the functions of different parts of the brain.

Watch Video Solution

41. Which are the different types of nerve cells or neurons?

OR

How are nerve cells classified according to their functions?

Watch Video Solution

42. Name the hormones of the following endocrine glands and the function of each:

Adrenal

Watch Video Solution

43. How does excretion occur in human being?

Watch Video Solution

44. Explain co-ordinatin is plants with the help of suitable examples.

Watch Video Solution