

BIOLOGY

BOOKS - NAVNEET PUBLICATION

LIFE PROCESES IN LIVING ORGANISMS

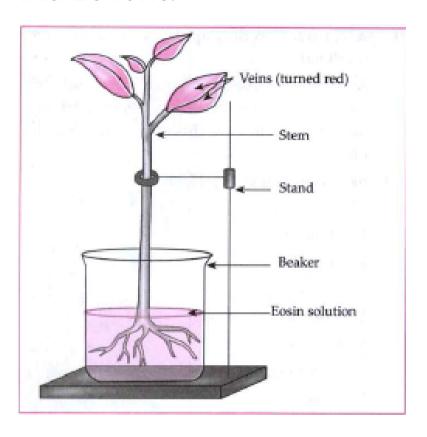
Examples

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



2. 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.





3. Why does this happen?

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



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4. Why does this happen?

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



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



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6. How does the process of excretion take place in humans?



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



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



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Exercise

1. Choose the correct alternative and write it along with its allotted alphabet:

By the process ofa substance either synthesized or absorbed in one part of the body reaches another.

A. transportation

B. transcription

C. translation

D. transduction

Answer: A

2. Choose the correct alternative and write it along with its allotted alphabet:

All parts of the plant are connected with thetissues.

A. epithelial

B. connective

C. conducting

D. nervous

Answer: C



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3. Choose the correct alternative and write it along with its allotted alphabet:

......cells control the opening and closing of stamata.

A. stomatal

B. Guard

C. Protective

D. Security

Answer: B



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4. Choose the correct alternative and write it along with its allotted alphabet:

Waste materials present in the form of crystals of calcium oxalate are called......

A. graphides

- B. oxalates
- C. crystallates
- D. raphides

Answer: D



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5. Choose the correct alternative and write it along with its allotted alphabet:

The functional unit of the kidney that

performs the basic function of filtration is called a..... A. nephron B. neuron C. cyton D. excron

Answer: A



6. Choose the correct alternative and write it along with its allotted alphabet:

The network of capillaries in Bowman's capsule is called a......

A. Malpighian body

B. Cup

C. Henle's loop

D. glomerulus

Answer: D



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7. Choose the correct alternative and write it along with its allotted alphabet:

Proper coordination between various systems of an organism helps to maintain a state of equilibrium called......

A. homeostasis

B. statism

C. balance

D. perfection

Answer: A



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8. Choose the correct alternative and write it along with its allotted alphabet:

The..... Of any plant shows positive phototropic movement.

- A. root system
- B. shoot system
- C. tissue system

D. conducting tissues

Answer: B



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9. Choose the correct alternative and write it along with its allotted alphabet:

There is minute space between two adjacent neurons which is called the

A. synapse

- B. synapsis
- C. synergy
- D. spacing

Answer: A



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10. Choose the correct alternative and write it along with its allotted alphabet:

The long tubular cavity of the spinal cord is called the ...canal.

- A. spinal
- B. nerve
- C. central
- D. middle

Answer: C



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11. Choose the correct alternative and write it along with its allotted alphabet:

...... supplies nutrients to the central nervous system and protects it form shock.

- A. blood cells
- B. cerebrospinal fluid
- C. muscular system
- D. Lymphatic circulation

Answer: B



12. Choose the correct alternative and write it along with its allotted alphabet:

The.....continues downwards as the spinal cord.

A. cerebral hemispheres

B. medulla oblongata

C. corpora quadrigemina

D. crura cerebri

Answer: B



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13. Choose the correct alternative and write it along with its allotted alphabet:

.....glands along with the nervous system are responsible for the control and coordinate in our body.

A. sweat

B. endocrine

C. blood

D. exocrine

Answer: C



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14. Choose the correct alternative and write it along with its allotted alphabet:

......contracts uterus during parturition.

- A. ADH
- B. Vassopressin
- C. Oxytocin
- D. Thyroxine

Answer: C



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15. Choose the correct alternative and write it along with its allotted alphabet:

......maintains balance of $Na^{\,+}$ and $k^{\,+}$ and stimulates metabolism.

- A. Insulin
- B. Thyroxin
- C. Glucagon

D. Corticosteroid

Answer: D



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16. State whether the following statements are

True or false:

Water and minerals enter the cells on the root surface due to differences in concentration.



17. State whether the following statements are True or false:

In the process of transportaion, excess food, except amino acids, is stored in roots, fruits



and seeds.

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18. State whether the following statements are True or false:

Latex of rubber is useful substance for the plants.

19. State whether the following statements are True or false:

Kidneys in the human beings is the only excretory organ in the body.



20. State whether the following statements are True or false:

The right kidney is on the uper side then the left kidney.



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21. State whether the following statements are

True or false:

Movement shown by plants in response to specific chemicals is called Gravitopic movement.



22. State whether the following statements are True or false:

Flower of Tuberose opens in the morning while the lotus opens at night.



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23. State whether the following statements are True or false:

Control of voluntary movements is done by cerebrum.



24. State whether the following statements are True or false:

There are 12 pairs of cranial nerves and 31 pairs of spinal nerves.



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25. State whether the following statements are True or false:

Beta cells in pancreas are same as F cells.

26. Match the pairs and explain:

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



27. Match the pairs and explain:

Plant hormones	Function
(1) Auxin	(A) Retardation of growth
(2) Gibberellins	(B) Cell division
	(C) Enlargement of cells
	(D) Stem elongation



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28. Match the pairs and explain:

Cells	Percentage	Hormones
Alpha cells	5%	Pancreatic polypeptide
Beta cells	5%	Somatostatin
Delta cells	20%	Insulin
P.P. cells	70%	Glucagon



29. 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 bycells. Special ends ofin these cells colected the information, from where it was transfered to the...... and then towards the terminal end of the The chemicals



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30. Name the following:

The neurons that performs the function of

integration in the nervous system.



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31. Name the following:

The part of the brain that occupies two thirds of the area.



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32. Name the following:

The thread-like fibrous structure at the end of

the spinal cord.



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33. Name the following:

Centre of coordination of reflex actions.



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34. Name the following:

Parts of the brain that controls the pituitary gland.



35. Name the following:

Hormone of parathyroid gland.



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36. Name the following:

Hormone of pancreas.



Endocrine gland in the thoracic cage.



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38. Name the following:

Four endocrine cells in the pancreas.



Controlling centre of involuntary activities.



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40. Name the following:

Three parts of nervous system.



Parts of excretory system in human beings.



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42. Name the following:

Plants hormone secreted at shoot system.



Hormone controlling metabolism of calcium and phosphorus.



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44. Name the following:

Hormone maintaining pregnancy.



45. Distinguish between the following:

Excretory system of humans and plants.



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46. Distinguish between:

Nervous control and Chemical control



47. Distinguish between cerebrum and cerebellum.



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

Pituitary:



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

Thyroid



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



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

Thymus



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

Testis



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



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54. Define the following:

Transportation



55. Define the following:

Translocation



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56. Give meanings of the following terms:

Bowman's capsule



57. Give meanings of the following terms:

Haemodialysis



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



59. Answer the following:

Give some examples of growth irrelevant movements.



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60. Answer the following:

When and how is haemodialysis done?

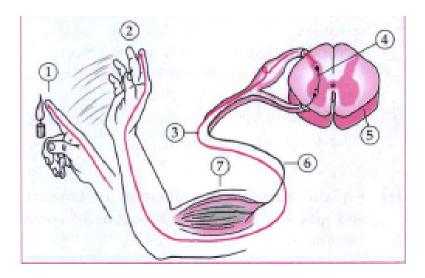


61. What are the functions of nervous system?



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62. 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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63. What are histones? What are their functions?



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64. Answer the following:

Classify the functions given below into those

of left side of the brain and those of the right side of the brain.

Analytical thinking, Holistic thinking, Intuition, creativity, language, science and mathematics, art and music.



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65. 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.



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



67. Explain in your own words with suitable examples:

What is meant by coordination?



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68. What is homeostasis?



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69. How does excretion occur in human being?



70. Answer the following questions:

Describe the formation of nitrogen molecule?



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



72. Describe the transportation system in plants.



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73. Give the scientific reasons:

All the plants parts are connected with the conducting tissues.



74. Give the scientific reasons:

The cells around the stomata are called guard cells



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75. Give the scientific reasons:

Dialysis is done if the kidneys are not functioning well.



76. Give the scientific reasons:

There should not be a randomness in any step of reactions in human body.



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77. Give the scientific reasons:

Chemotropism is called growth relevant movement.



78. Give the scientific reasons:

Muscle cells become able to response to electrical impulses of nerves.



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79. Write short note on Root pressure.



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80. Write short notes:

Transpiration



81. Write short a note on: Translation.



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82. Write short note on Neuron.



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83. Write short note on: Human Brain



84. Write short notes:

Reflex action



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85. Write short notes:

Spinal cord



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



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



88. Use your brain power

Which type of plant tissues are xylem and phloem?



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89. Use your brain power

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?

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90. 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.



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



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



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



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



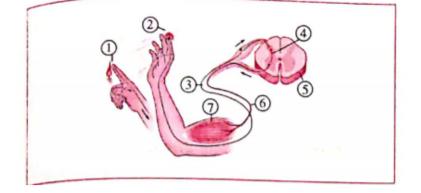
95. Use your brain power

An injury to the medulla oblongata can lead to death. Why?



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96. Observe the figure given below carefully and as per the number in that figure answer the following questions:

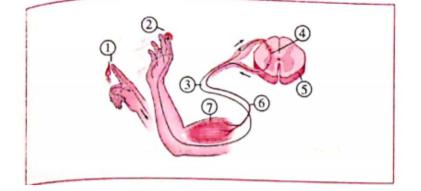


What is happening at 1 and 2?



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97. Observe the figure given below carefully and as per the number in that figurem answer the following questions:

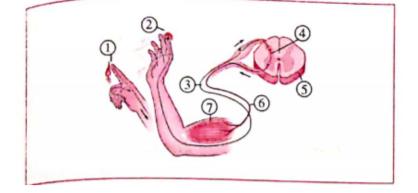


Which nerve carried the impulse to the point marked 3? In which direction is it conducting the impulse?



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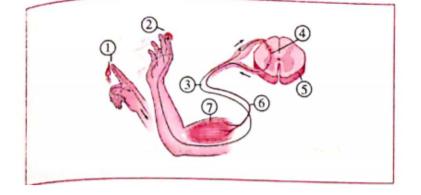
98. Observe the figure given below carefully and as per the number in that figure answer the following questions:



Which is the nerve shown by 4?



99. Observe the figure given below carefully and as per the number in that figure answer the following questions:

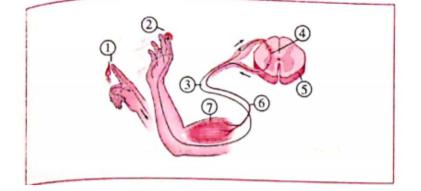


Which is the organ marked as 5?



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100. Observe the figure given below carefully and as per the number in that figurem answer the following questions:

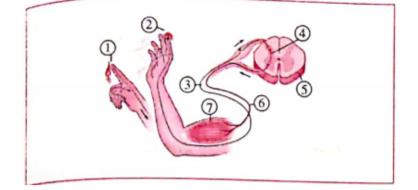


At 6, which nerve is conducting the response impulse?



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101. Observe the figure given below carefully and as per the number in that figurem answer the following questions:



At 7, where has the impulse reached? What is its effect?



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102. Draw neat and labelled diagram:

Human excretory system



103. Draw neat and labelled diagram:

Nephron



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104. Draw neat and labelled diagram:

Vertical Section of Kidney



105. Draw well-labelled and neat diagram of Dialysis of blood.



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106. Draw a neat labelled diagram of.

L.S. of human brain



107. Draw a neat labelled diagrams of.

Multipolar neuron



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108. Draw well-labelled and neat diagram of Neuron-muscular junction.



109. Draw well-labelled and neat diagram of Dialysis of blood.

