



BIOLOGY

BOOKS - EVERGREEN BIOLOGY (ENGLISH)

SAMPLE PAPER 2017

Section I

1. Name the following :

The process by which root hairs absorb water

from the soil.



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2. Name the organ where urea is produced.



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3. Name the following:

The kind of nerve which carries both sensory and motor neurons:.....



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4. Name the hormone responsible for the following functions

Name the pituitary hormone which stimulates contraction of uterus during child birth.



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5. Categorize the following activities as per the functions of the Red Cross Society and the

WHO.

To educate people in accident prevention.



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6. The statement given below is incorrect.

Rewrite the correct statement by changing the underlined words of the statement.

The Graafian follicle, after ovulation turns into a hormone producing tissue called Corpus callosum.



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7. The statement given below is incorrect.

Rewrite the correct statement by changing the underlined words of the statement.

Deafness is caused due to the rupturing of the Pinna.



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8. The statement given below is incorrect.

Rewrite the correct statement by changing the

underlined words of the statement

Gyri and Sulci are the folds of Cerebellum.



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9. The statement given below is incorrect.

Rewrite the correct statement by changing the underlined words of the statement.

Free movement of solutes in and out of the cell takes place across the cell membrane.



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10. The statement given below is incorrect.

Rewrite the correct statement by changing the underlined words of the statement

The solvent used to dissolve the chlorophyll pigments while testing a leaf for starch is Soda lime



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11. Rewrite the terms in correct order so as to be in a logical sequence.

Fibrin, Platelets, Thromboplastin, Fibrinogen,
Thrombin



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12. Given below are sets of five terms each.
Rewrite the terms in correct order in a logical
sequence.

Example : Large intestine, Stomach, Mouth,
Small intestine, Oesophagus.

Answer : Mouth → Oesophagus →
Stomach → Small intestine → Large

intestine.

Cochlea, Malleus, Pinna, Stapes, Incus.



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13. Given below are five groups of terms. In each group arrange and rewrite the terms in the correct order so as to be in a logical sequence.

For example:

Question : Implantation, Parturition,
Ovulation, Gestation, Fertilization.

Answer: Ovulation, Fertilization, Implantation, Gestation, Parturition.

Spinal cord, Motor neuron, Receptor, Effector, Sensory neuron.



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14. Rewrite the following in correct order as to be in a logical sequence :

Uterus, Parturition, Fertilisation, Gestation, Implantation.



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15. Rewrite in correct logical sequence

Caterpillar, Snake, Owl, Frog, Green leaves.



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16. Choose the ODD one out of the following terms given and name the CATEGORY to which the others belong :

Aqueous humour, Vitreous humour, Iris,

Central canal



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17. Choose the ODD one out of the following terms given and name the CATEGORY to which the others belong :

Formalin, Iodine, DDT, Lime



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18. Choose the ODD one out of the following terms given and name the CATEGORY to which the others belong :

(I) ACTH, TSH, ADH, FSH

(iii) Insulin, Adrenaline, Pepsin, Thyroxine.



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19. Choose the odd one out of the following set of terms given and name the category to which the others belong:

(i) Phosphate, RNA, Sugar, Nitrogenous base.

(ii) Urethra, uterus, urinary bladder, ureter.

(iii) Cyton, Photon, Axon, Dendron.

(iv) Haemoglobin, glucagon, iodopsin,

rhodopsin.

(v) Dendrites, Medullary Sheath, Axon, Spinal cord.



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20. Choose the ODD one out of the following terms given and name the CATEGORY to which the others belong :

Bile, Urea, Uric acid, Ammonia



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21. Rewrite and complete the second part:

Eye : Optic nerve :: Ear:



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22. Given below are groups of terms. In each group the first pair indicates the relationship between the two terms. Rewrite and complete the second pair on a similar basis.

Adenine: Thymine: : Cytosine :



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23. Given below are groups of terms. In each group the first pair indicates the relationship between the two terms. Rewrite and complete the second pair on a similar basis.

TT : Homozygous :: Tt: _____



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24. Given below are group of terms. In each group the first pair indicates the relationship between the two terms. Rewrite and complete

the second pair on a similar basis.

Example : Oxygen : Inspiration :: Carbon dioxide : Expiration

Foetus: Amnion :: Heart : ____.



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25. Given below are groups of terms. In each group the first pair indicates the relationship between the two terms. Rewrite and complete the second pair on a similar basis.

Adenine: Thymine: : Cytosine :



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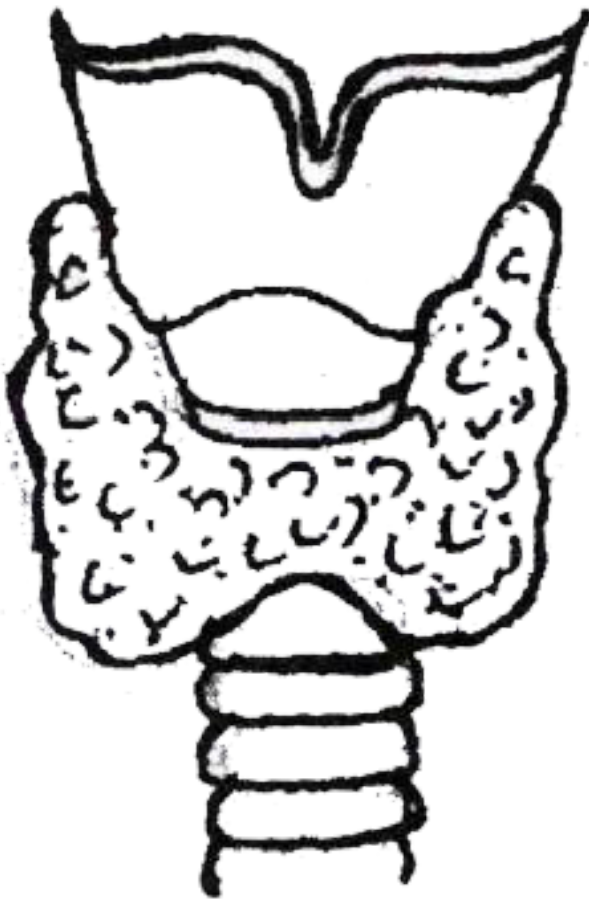
26. Match the items given in Column A with the most appropriate ones in Column B and rewrite the correct matching pairs .

Column A	Column B
(i) Cretinism	(a) Hypersecretion of adrenal cortex
(ii) Diabetes insipidus	(b) Hyposecretion of thyroxine
(iii) Exophthalmic goitre	(c) Hyposecretion of growth hormone
(iv) Adrenal virilism	(d) Hyposecretion of vasopressin
(v) Dwarfism	(e) Hyposecretion of adrenal cortex
	(f) Hypersecretion of growth hormone
	(g) Hypersecretion of thyroxine



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27. The diagram given below represents the location and structure of an endocrine gland. Study the same and answer the questions that follow:



(i) Name the endocrine gland shown in the diagram.

(ii) Name the secretion of the gland which regulates basal metabolism

(iii) Name the mineral element required for the synthesis of the above mentioned hormone.

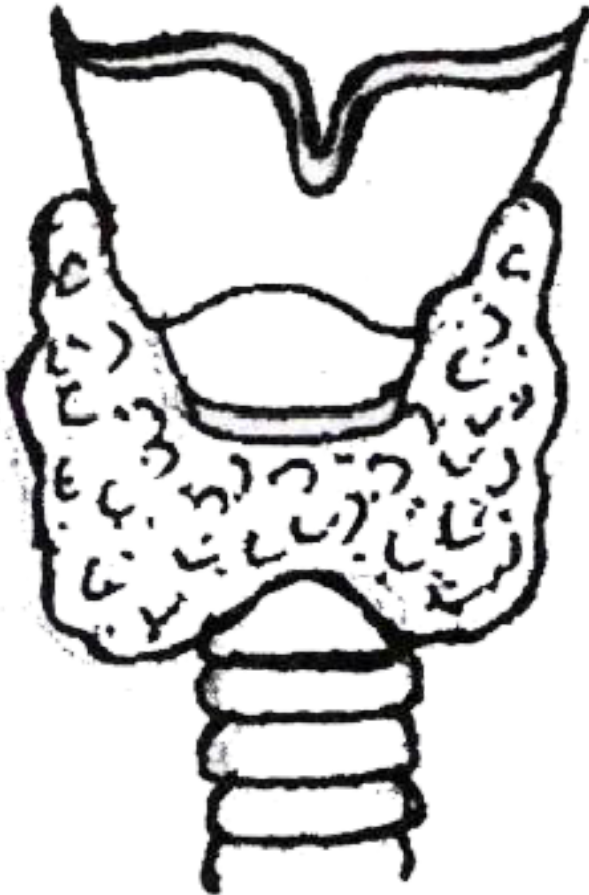
(iv) Name the disease caused due to undersecretion of the above mentioned hormone in children.

(v) Name the disease caused due to hypersecretion of the above mentioned hormone .



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28. The diagram given below represents the location and structure of an endocrine gland. Study the same and answer the questions that follow:



(i) Name the endocrine gland shown in the diagram.

(ii) Name the secretion of the gland which regulates basal metabolism

(iii) Name the mineral element required for the synthesis of the above mentioned hormone.

(iv) Name the disease caused due to undersecretion of the above mentioned hormone in children.

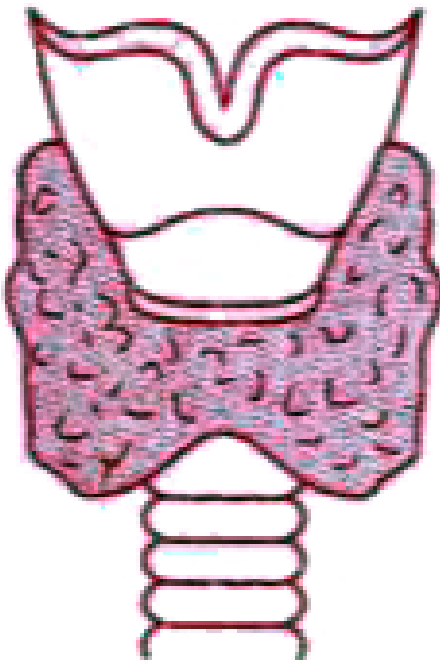
(v) Name the disease caused due to

hypersecretion of the above mentioned hormone .



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29. The diagram given below represents the location and structure of an endocrine gland. Study the same and answer the questions that follow :

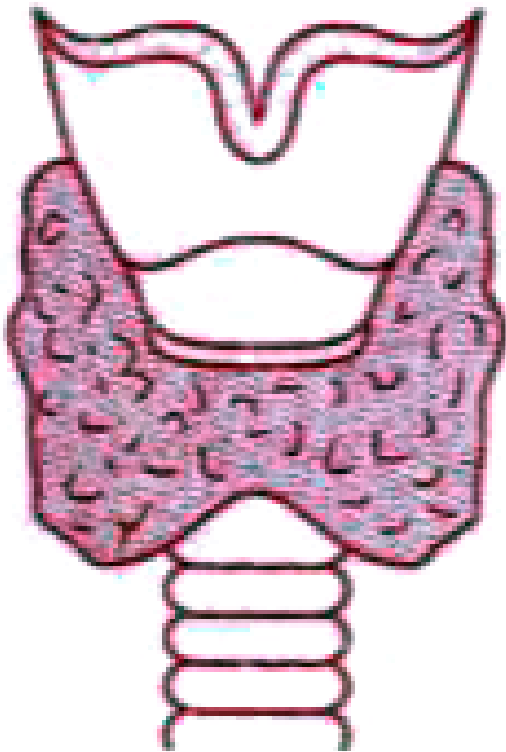


Name the mineral element required for the synthesis of the above mentioned hormone.



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30. The diagram given below represents the location and structure of an endocrine gland. Study the same and answer the questions that follow :



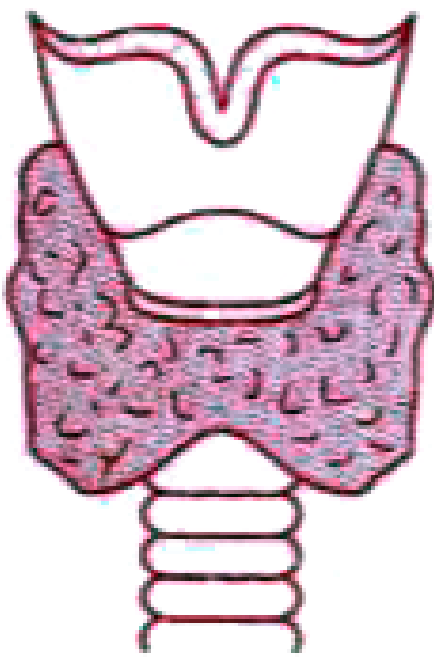
Name the disease caused due to

undersecretion of the above mentioned hormone in children.



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31. The diagram given below represents the location and structure of an endocrine gland. Study the same and answer the questions that follow :



Name the disease caused due to hypersecretion of the above mentioned hormone.



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1. Choose the correct option from the four given below:

The prime source of chlorofluorocarbon is :

- A. Vehicular emissions
- B. Industrial effluents
- C. Domestic sewage
- D. Refrigeration equipments

Answer: D



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2. Penicillin is obtained from

A. Antibiotic

B. Antiseptic

C. Antibody

D. Antiserum

Answer: A



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3. Choose the correct answer from each of the four options given below:

Marine fish when placed in tap water bursts because of:

A. Endosmosis

B. Exosmosis

C. Diffusion

D. Plasmolysis

Answer: A



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4. Choose the correct answer from each of the four options given below:

Surgical method of sterilization in a woman involves cutting and tying of:

A. Ureter

B. Uterus

C. Urethra

D. Oviduct

Answer: D



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5. Synthesis phase in the cell cycle is called so, because of the synthesis of more:

A. RNA

B. RNA and proteins

C. DNA

D. Glucose

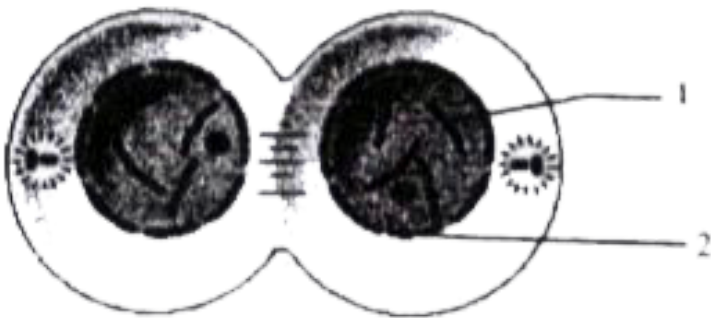
Answer: C



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Section II

1. Study the diagram given below which represents a stage during the mitotic cell division and answer the questions that follow:

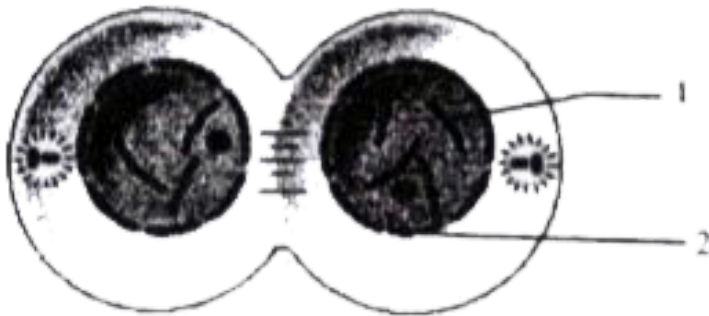


Identify the stage giving suitable reasons.



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2. Study the diagram given below which represents a stage during the mitotic cell division and answer the questions that follow:

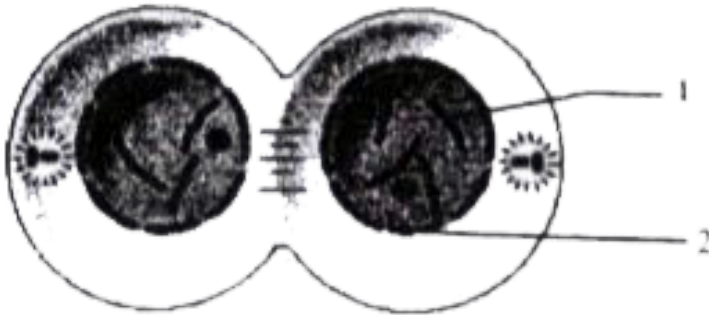


Name the parts numbered 1 and 2.



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3. Study the diagram given below which represents a stage during the mitotic cell division and answer the questions that follow:

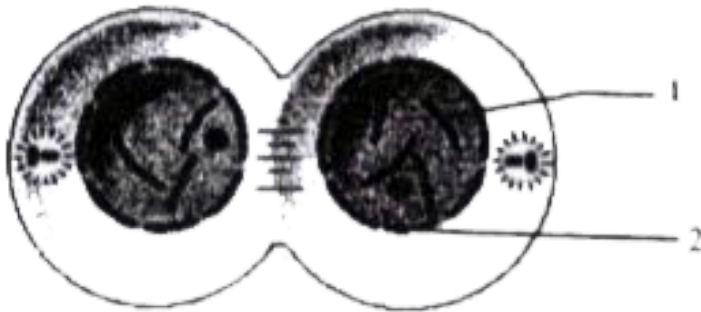


What is the technical term for the division of nucleus?



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4. Study the diagram given below which represents a stage during the mitotic cell division and answer the questions that follow:

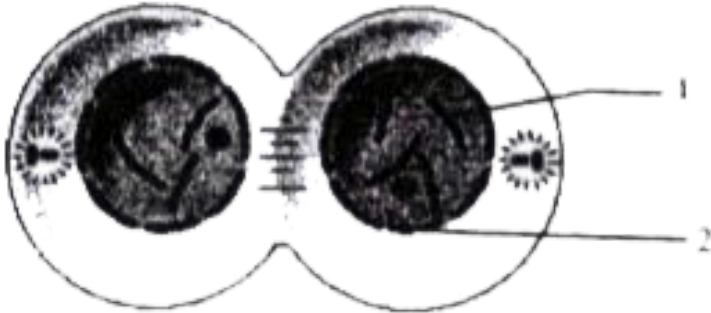


Mention the stage that comes before the stage shown in the diagram. Draw a neat labelled diagram of the stage mentioned.



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5. Study the diagram given below which represents a stage during the mitotic cell division and answer the questions that follow:



Which is the cell division that results in half the number of chromosomes in daughter cells?



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6. Differentiate between the following pairs on the basis of what is mentioned in brackets:

Active Transport and Diffusion [Significance in plants]



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7. Differentiate between the following pair on the basis of what is mentioned within bracket.

Demography and Population density

[Definition]





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8. Differentiate between the following pairs on the basis of what is mentioned in brackets:

Antibiotic and Antibody (Source)



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9. Differentiate between the following pair on the basis of what is mentioned within brackets:

Renal cortex and Renal medulla [Parts of the nephrons present]



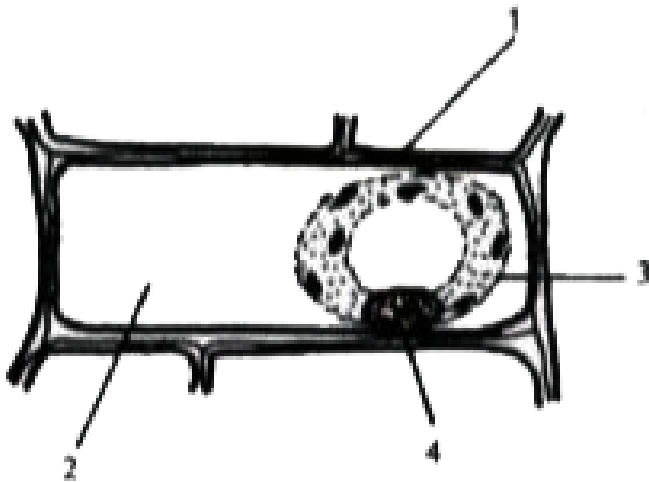
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10. Differentiate between the following pair on the basis of what is mentioned within bracket
NADP and ATP (Expand the abbreviation)



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11. The diagram given below represents a plant cell after being placed in a strong sugar solution . Study the diagram and answer the questions that follow:

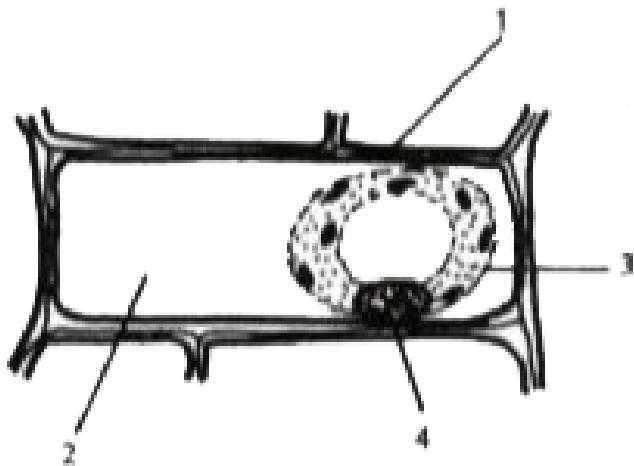


What is the state of the cell shown in the diagram?



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12. The diagram given below represents a plant cell after being placed in a strong sugar solution . Study the diagram and answer the questions that follow:

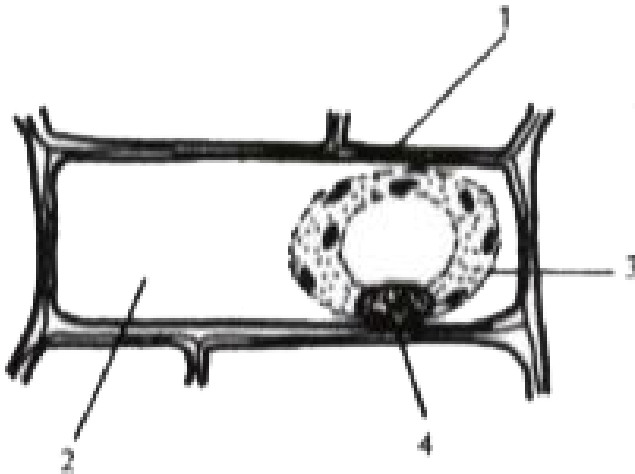


Name the structure that acts as a selectively permeable membrane.



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13. The diagram given below represents a plant cell after being placed in a strong sugar solution . Study the diagram and answer the questions that follow:

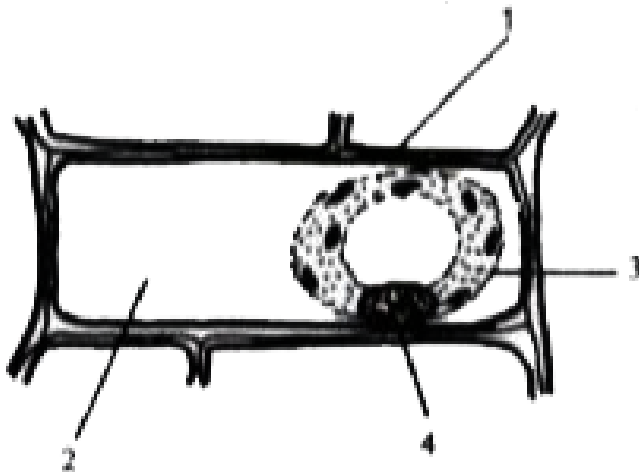


Label the parts numbered 1 to 4 in the diagram.



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14. The diagram given below represents a plant cell after being placed in a strong sugar solution . Study the diagram and answer the questions that follow:



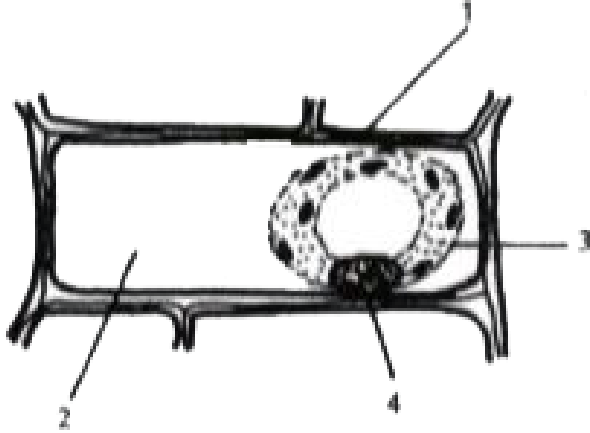
How can the above cell be brought back to its

original condition? Mention the scientific term for the recovery of the cell.



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15. The diagram given below represents a plant cell after being placed in a strong sugar solution . Study the diagram and answer the questions that follow:

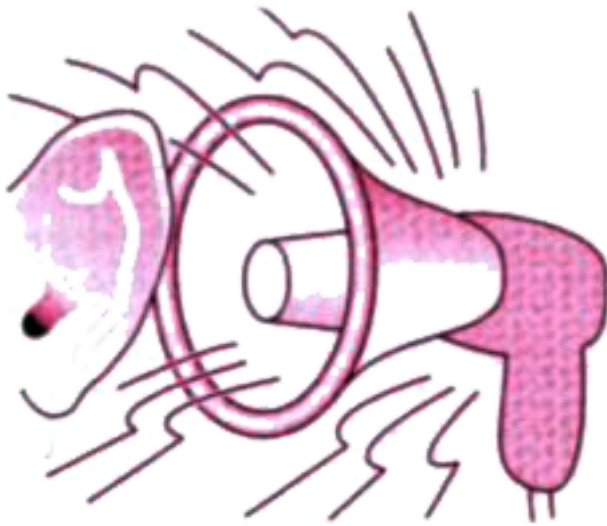


State any two features of the above plant cell which is not present in animal cells.



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16. Given below is a representation of kind of pollution. Study the same and answer the questions that follow :



Name the kind of pollution.



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17. List any three common sources of pollution.



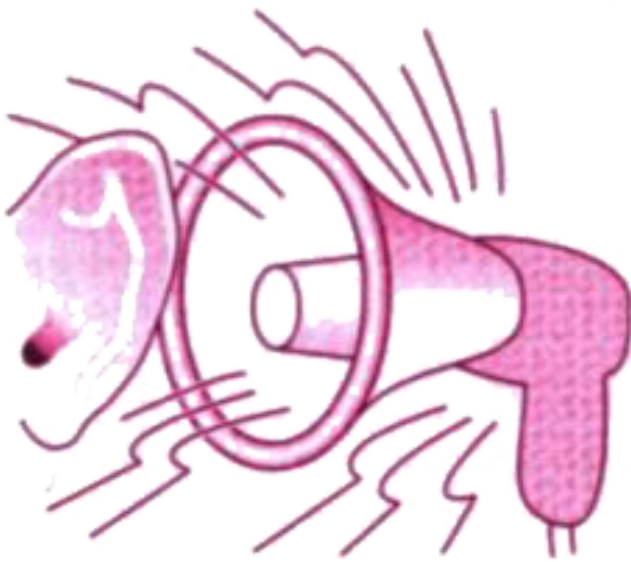
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18. Mention three harmful effects of pollution on human health.



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19. Given below is a representation of kind of pollution. Study the same and answer the questions that follow :

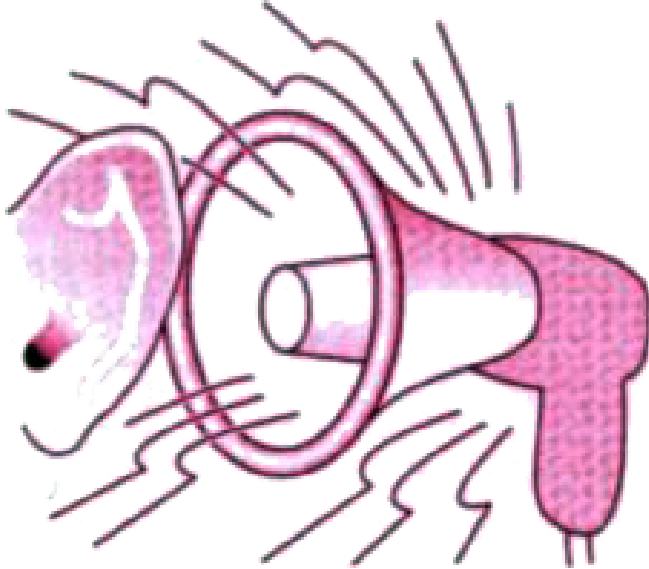


Explain the term 'Pollutant'.



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20. Given below is a representation of kind of pollution. Study the same and answer the questions that follow :



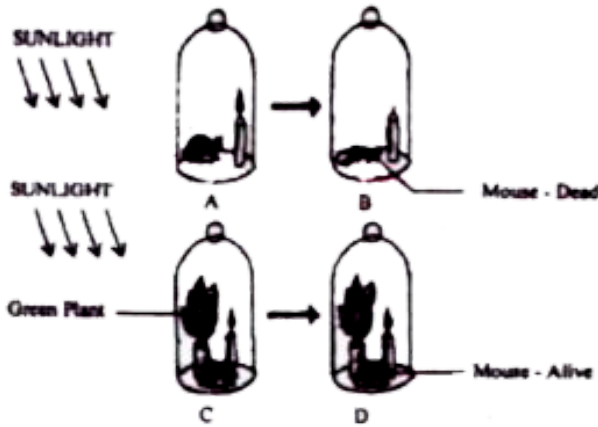
Name two soil pollutants.



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21. The diagrams given below represent the relationship between a mouse and a physiological process that occurs in green

plants. Study the diagrams and answer the questions that follow

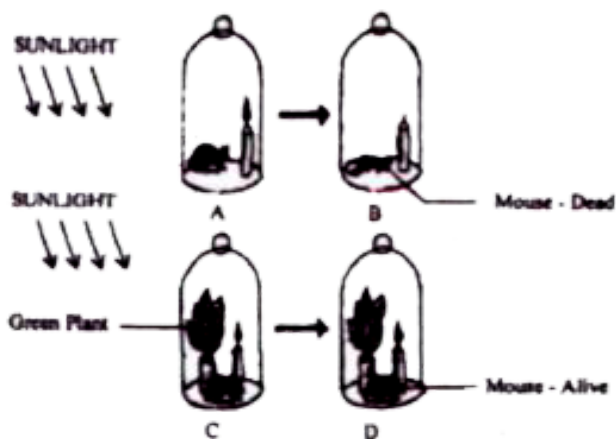


Name the physiological process occurring in the green plant that has kept the mouse alive



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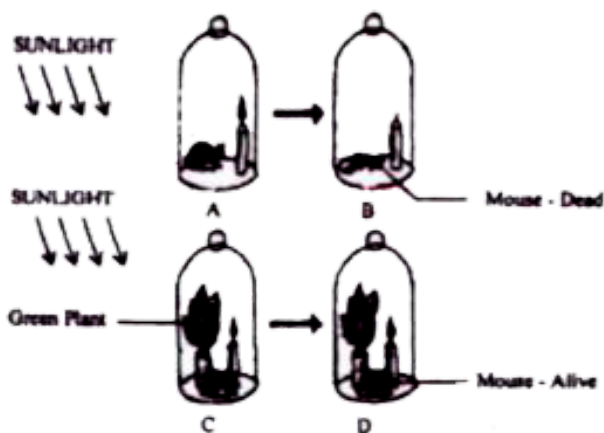
22. The diagrams given below represent the relationship between a mouse and a physiological process that occurs in green plants. Study the diagrams and answer the questions that follow



Explain the physiological process mentioned above



23. The diagrams given below represent the relationship between a mouse and a physiological process that occurs in green plants. Study the diagrams and answer the questions that follow

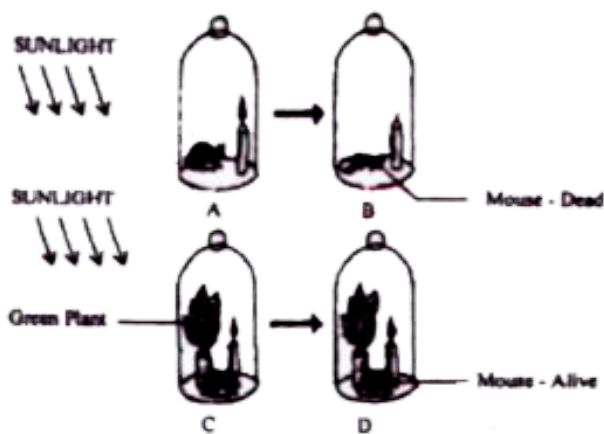


Why did the mouse die in bell jar B?



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24. The diagrams given below represent the relationship between a mouse and a physiological process that occurs in green plants. Study the diagrams and answer the questions that follow

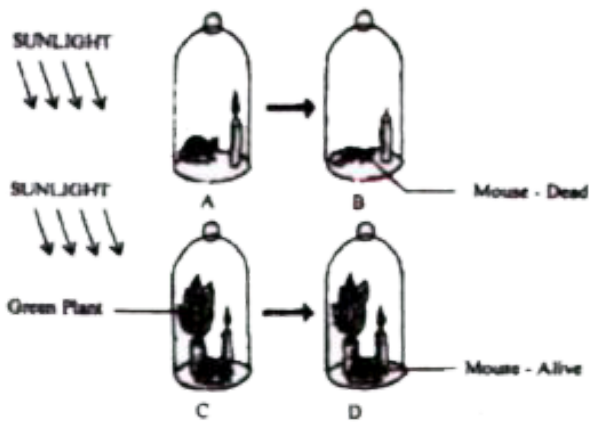


What is the significance of the process as stated in (for life on earth?



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25. The diagrams given below represent the relationship between a mouse and a physiological process that occurs in green plants. Study the diagrams and answer the questions that follow



Represent the above mentioned physiological process in the form of a chemical equation

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26. Give the exact location and one function of the following:

Prostate gland.



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27. State the exact location of the following:

Myelin sheath.



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28. Give the exact location of the following :

Islet of Langerhans



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29. Mention the exact location of the following structures : Semi-circular canals.



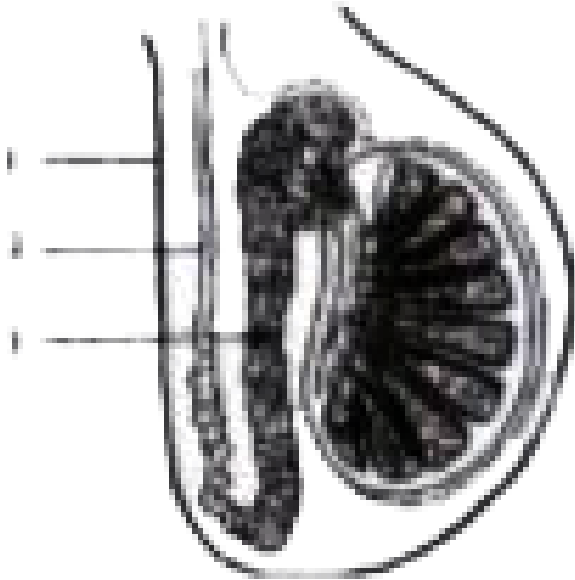
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30. Mention the exact location of the Eustachian tube.



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31. The diagram shown below is the longitudinal section of a testis of man. Study it carefully and answer the questions that follow :



(i) Label the parts numbered 1 to 3 in the

diagram.

(ii) In which part of the testis are the sperms ?

(iii) State the functions of the parts labelled 1 and 3 in the diagram.

(iv) Name the cells that secrete Testosterone.

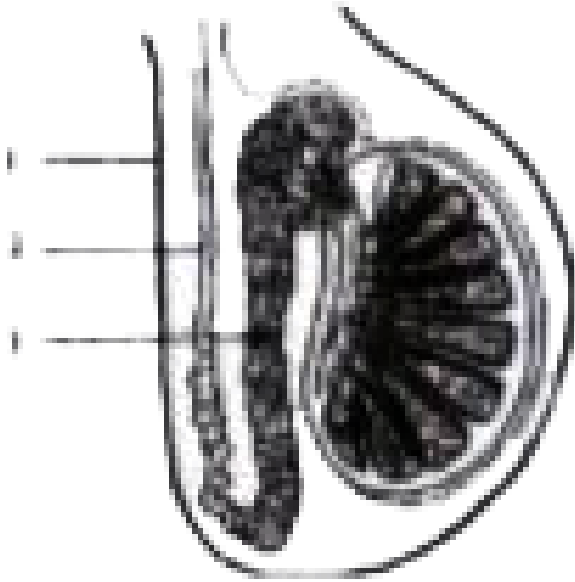
(v) Draw a neat, labelled diagram of a sperm.



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32. The diagram shown below is the longitudinal section of a testis of man. Study it carefully and answer the questions that follow

:



(i) Label the parts numbered 1 to 3 in the diagram.

(ii) In which part of the testis are the sperms ?

(iii) State the functions of the parts labelled 1 and 3 in the diagram.

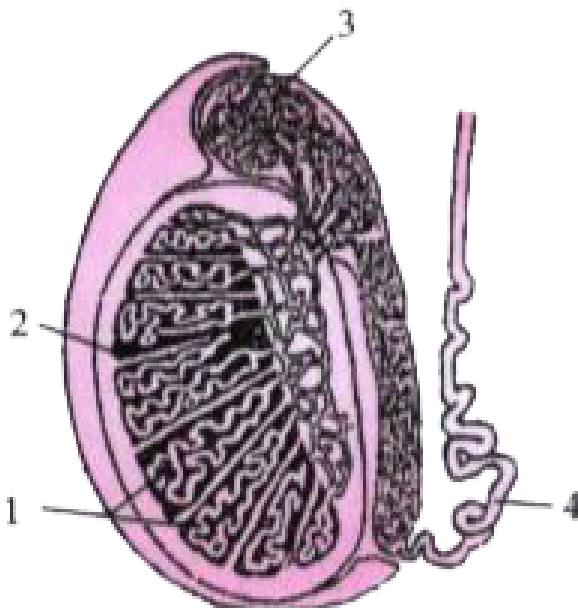
(iv) Name the cells that secrete Testosterone.

(v) Draw a neat, labelled diagram of a sperm.



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33. Given below is a diagram of the lateral section of a testis of a man. Study the same and answer the questions that follow :



State the functions of the parts labelled 1 and 3.

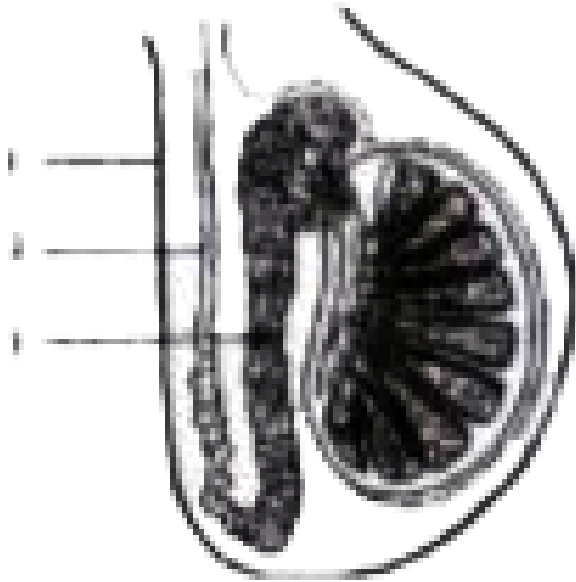


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34. The diagram shown below is the longitudinal section of a testis of man. Study it

carefully and answer the questions that follow

:



(i) Label the parts numbered 1 to 3 in the diagram.

(ii) In which part of the testis are the sperms ?

(iii) State the functions of the parts labelled 1

and 3 in the diagram.

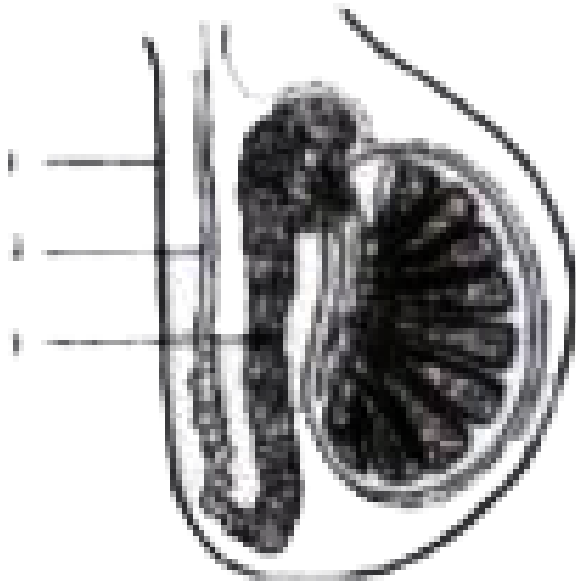
(iv) Name the cells that secrete Testosterone.

(v) Draw a neat, labelled diagram of a sperm.



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35. The diagram shown below is the longitudinal section of a testis of man. Study it carefully and answer the questions that follow :



(i) Label the parts numbered 1 to 3 in the diagram.

(ii) In which part of the testis are the sperms ?

(iii) State the functions of the parts labelled 1 and 3 in the diagram.

(iv) Name the cells that secrete Testosterone.

(v) Draw a neat, labelled diagram of a sperm.



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36. Give biological reason for the following statement: Some women have facial hair like beard and moustache.



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37. Give biological reason for the following statement

Cutting of trees should be discouraged.



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38. Give biological reason for the following statements :

In some xerophytes, leaves are modified into spines.



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39. Give biological reason for the following:

There is frequent urination in winter than in summer.



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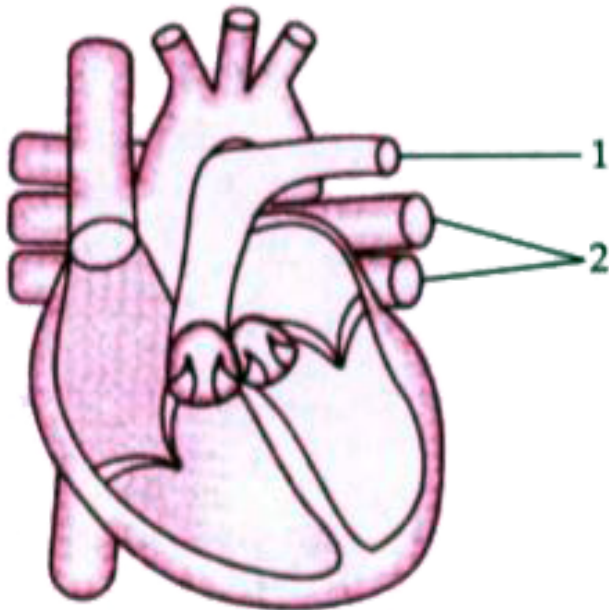
40. Give biological reason for the following:

The left ventricle of the heart has a thicker wall than the right ventricle.



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41. The diagram given below represents a section of the human heart. Answer the questions that follow:

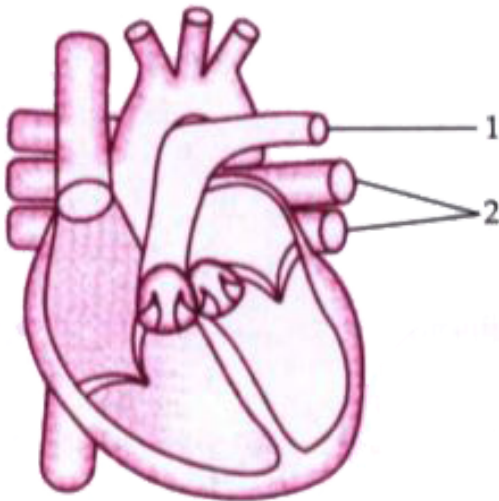


Which parts of heart are in the diastolic phase? Give a reason to support your answer.



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42. The diagram given below represents a section of the human heart. Answer the questions that follow:

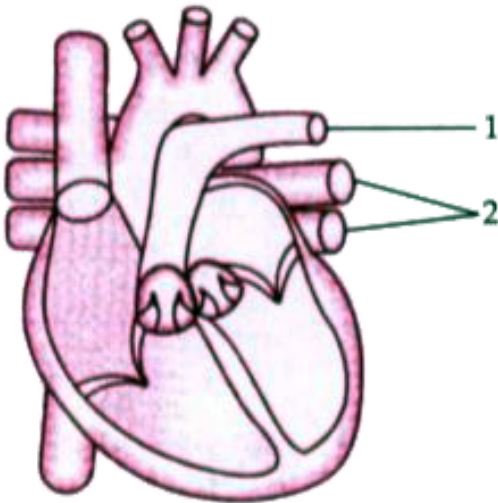


Label the parts numbered 1 and 2 in the diagram, What type of blood flows through them?



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43. The diagram given below represents a section of the human heart. Answer the questions that follow:



What causes the heart sounds "LUB" and "DUB"



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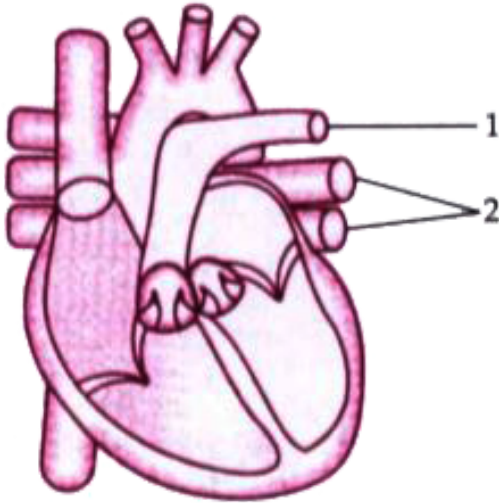
44. Name the blood vessels that supply oxygenated blood to the heart muscles.



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45. The diagram given below represents a section of the human heart. Answer the

questions that follow:



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46. Give appropriate biological technical terms for the following:

The type of immunity that exists in our body due to our genetic makeup.



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47. Give biological/ technical terms for the following:

The suppressed allele.



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48. Name the following :

The accessory gland in human males whose secretion activates the sperms.



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49. Name the following :

An apparatus to compare the rate of transpiration in a cut shoot.



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50. Give technical term :

The kind of twins formed from two fertilised eggs.



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51. Give biological/ technical terms for the following:

A pair of corresponding chromosomes of the same size and shape, one from each parent.



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52. Give appropriate biological technical terms for the following:

The mild chemical substance which when applied on the body kills germs.



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53. Give the biological/technical term for the following:

The type of waste generated in hospitals and pathological laboratories.





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54. Give the biological/technical terms for the following:

An Antiseptic substance present in tears.



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55. Give appropriate biological technical terms for the following:

Cellular components of blood containing haemoglobin.



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56. In a homozygous pea plant, axial flowers (A) are dominant over terminal flowers (a).

What is the phenotype and genotype of the F_1 generation if a plant bearing pure axial flowers is crossed with a plant bearing pure terminal flowers?



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57. In a homozygous pea plant, axial flowers (A) are dominant over terminal flowers (a).

Draw a Punnett square board to show the gametes and offsprings when both the parent plants are heterozygous for axial flowers.



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58. In a homozygous pea plant, axial flowers (A) are dominant over terminal flowers (a).

What is the phenotypic ratio and genotypic ratio of the above cross shown in (ii)?



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59. In a homozygous pea plant, axial flowers (A) are dominant over terminal flowers (a).

State Mendel's Law of Dominance.



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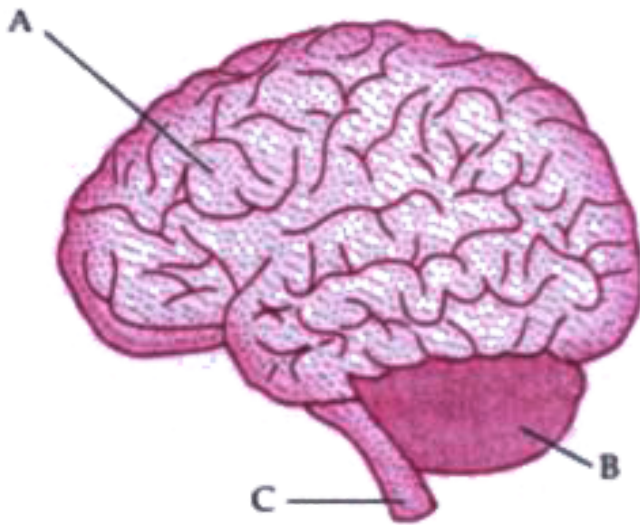
60. In a homozygous pea plant, axial flowers (A) are dominant over terminal flowers (a).

Name two genetic disorders commonly seen in human males.



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61. The diagram given below is an external view of the human brain. Study the same and answer the questions that follow :



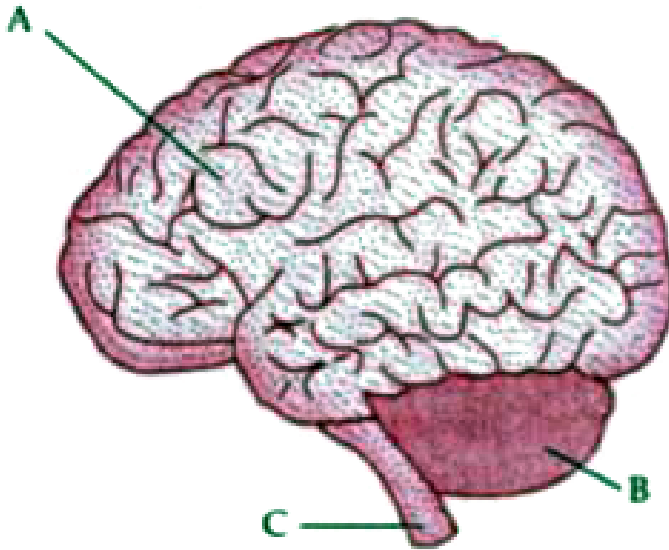
Name the parts labelled A, B and C in the diagram.



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62. The diagram given below is an external view of the human brain. Study the same and

answer the questions that follow :



State the main functions of the parts labelled

A and B.



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63. The diagram given below is an external view of the human brain. Study the same and answer the questions that follow :



What are the structural and functional units of the brain ? How are the parts of these units arranged in A and C ?



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64. The diagram given below is an external view of the human brain. Study the same and answer the questions that follow :



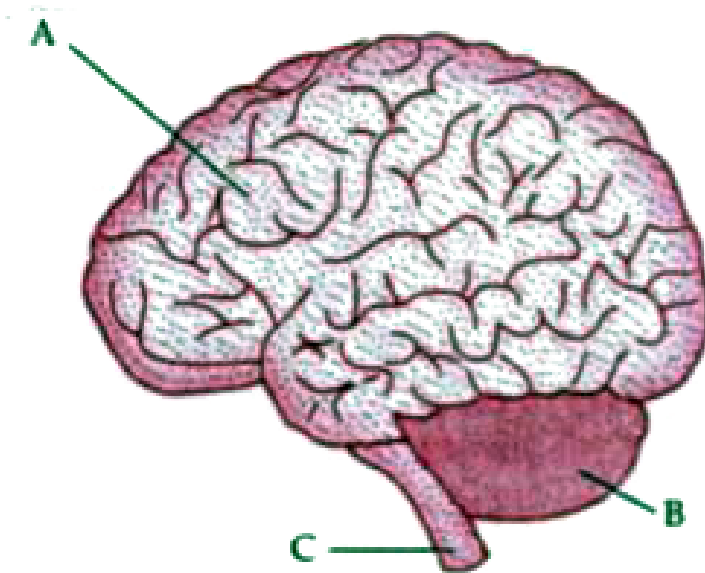
Mention the collective term for the membranes covering the brain.



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65. The diagram given below is an external view of the human brain. Study the same and

answer the questions that follow :



What is the function of Cerebrospinal fluid ?



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