



www.zigya.com

Previous Year Paper

Biology - 2007



Match The Following

1. Match the items in Column A with those which are most appropriate in Column B. You must rewrite the matching pairs.

A. Basic unit of life	(i) Glucagon
B. Beta cells of pancreas	(ii) Meninges
C. Meiosis	(iii) Iris
D. Meiosis	(iv) Cell
E. Constriction of the pupil of the eye	(v) Insulin

Answer



Fill In the Blanks

2. In the box given below is a list of biological terms which can be used to complete the statements which follow. Select the appropriate term from the box and re-write the completed statement. You may use a term only once.

Concave, Neuron, Lactic acid, Glucose, Animal waste, Gestation, Nerve, Ethyl alcohol, Nephron, Myopia, DDT, Pregnancy, Convex

The type of lens used to correct myopia is _____.

Answer

3. In the box given below is a list of biological terms which can be used to complete the statements which follow. Select the appropriate term from the box and re-write the completed statement. You may use a term only once.

Concave, Neuron, Lactic acid, Glucose, Animal waste, Gestation, Nerve, Ethyl alcohol, Nephron, Myopia, DDT, Pregnancy, Convex

The basic unit of the human brain is the _____.

Answer

4. In the box given below is a list of biological terms which can be used to complete the statements which follow. Select the appropriate term from the box and re-write the completed statement.

You may use a term only once.

Like. Share. Bookmark. Download. Make Notes. Print - Your Favourite Questions. Join www.zigya.com

The end-product of fermentation is _____.

Answer

5. In the box given below is a list of biological terms which can be used to complete the statements which follow. Select the appropriate term from the box and re-write the completed statement. You may use a term only once.

Concave, Neuron, Lactic acid, Glucose, Animal waste, Gestation, Nerve, Ethyl alcohol, Nephron, Myopia, DDT, Pregnancy, Convex

A non-degradable pollutant is _____.

Answer

6. In the box given below is a list of biological terms which can be used to complete the statements which follow. Select the appropriate term from the box and re-write the completed statement. You may use a term only once.

Concave, Neuron, Lactic acid, Glucose, Animal waste, Gestation, Nerve, Ethyl alcohol, Nephron, Myopia, DDT, Pregnancy, Convex

The period of complete development of the foetus till birth is termed _____.

Answer



One Word Answers

7. Name the following:
Cytoplasmic organelles which help in the manufacture of starch.
8. Name the following:
The statistical study of human population.
9. Name the following:
Pair of genes responsible for a particular characteristic in an individual.
10. Name the following:

A solution whose concentration is greater than that of the cell sap.

Answer

11. Name the following:
The fluid which provides protection and nourishment to the cells of the brain.

Answer

Like. Share. Bookmark. Download. Make Notes. Print - Your Favourite Questions. Join www.zigya.com

12. Given below are the functions of certain organs/structures found in living organisms. In each case, name the organ or structure which
 Produces testosterone

[Answer](#)

13. Given below are the functions of certain organs/structures found in living organisms. In each case, name the organ or structure which
 Is responsible for protecting the eye from sweat

[Answer](#)

14. Given below are the functions of certain organs/structures found in living organisms. In each case, name the organ or structure which
 Transmits characteristics from the parent to the offspring

[Answer](#)

15. Given below are the functions of certain organs/structures found in living organisms. In each case, name the organ or structure which
 Transports water from the soil to other parts of the plant

[Answer](#)

16. Given below are the functions of certain organs/structures found in living organisms. In each case, name the organ or structure which
 Initiates cell division

[Answer](#)



True Or False

17. State whether the following statements are true or false. If false, write the correct statement by changing the incorrect word/words only.
 A. Mortality is the number of deaths per thousand of the population per decade.
- [Answer](#)
18. State whether the following statements are true or false. If false, write the correct statement by changing the incorrect word/words only.
 A. The symbiotic bacterium which helps in nitrogen fixation is Rhizobium radicola
- [Answer](#)
19. State whether the following statements are true or false. If false, write the correct statement by changing the incorrect word/words only.
 A. Rods are responsible for vision in the dark.
- [Answer](#)
20. State whether the following statements are true or false. If false, write the correct statement by changing the incorrect word/words only.
 A. The dark reaction of photosynthesis is light independent.

[Answer](#)

21. State whether the following statements are true or false. If false, write the correct statement by

Like. Share. Bookmark. Download. Make Notes. Print Your Favourite Questions. Join www.zigya.com

Study Assignments, Solved Previous Year Papers, Questions and Answers, Free Forever.
A. The process of fusion of the sperm nucleus and the egg nucleus is termed implantation.

Answer



Short Answer Type

22. Explain the following terms:

Tropic hormone

Answer

23. Explain the following terms:

Guttation

Answer

24. Explain the following terms:

Osmosis

Answer

25. Explain the following terms:

Stereoscopic vision

Answer

26. Explain the following terms:

Mutation

Answer

27. Given below is a set of terms arranged in a logical sequence, representing a process or a function. Of these, one term is incorrect. Identify the incorrect term and replace it with the correct term. One has been done for you as an example.

E.g. Pollen grain → Exine → Staminal tube → Male gametes → Micropyle

Incorrect term - Staminal tube.

Correct term - Pollen tube

Seminiferous tubule → Sperm → Sperm duct → Accessory glands → Semen → Ureter

Answer

28. Given below is a set of terms arranged in a logical sequence, representing a process or a function. Of these, one term is incorrect. Identify the incorrect term and replace it with the correct term. One has been done for you as an example.

E.g. Pollen grain → Exine → Staminal tube → Male gametes → Micropyle

Incorrect term - Staminal tube.

Correct term - Pollen tube

Soil water → Root hair → Cells of cortex → Epidermis → Xylem

Answer

- ~~29. Given below is a set of terms arranged in a logical sequence, representing a process or a~~

~~function. Of these, one term is incorrect. Identify the incorrect term and replace it with the~~
Like. Share. Bookmark. Download. Make Notes. Print - Your Favourite Questions. Join www.zigya.com

E.g. Pollen grain → Exine → Staminal tube → Male gametes → Micropyle

Study, Assignments, Solved Previous Year Papers . Questions and Answers. Free Forever.
Incorrect term - Staminal tube.

Correct term - Pollen tube

Oxygen → Stoma → Respiratory cavity → Mesophyll cells → Oxidation of glucose → 2 ATP

[Answer](#)

30. Given below is a set of terms arranged in a logical sequence, representing a process or a function. Of these, one term is incorrect. Identify the incorrect term and replace it with the correct term. One has been done for you as an example.

E.g. Pollen grain → Exine → Staminal tube → Male gametes → Micropyle

Incorrect term - Staminal tube.

Correct term - Pollen tube

Pupil → Eye lens → Vitreous humour → Fovea → Auditory nerve

[Answer](#)

31. Given below is a set of terms arranged in a logical sequence, representing a process or a function. Of these, one term is incorrect. Identify the incorrect term and replace it with the correct term. One has been done for you as an example.

E.g. Pollen grain → Exine → Staminal tube → Male gametes → Micropyle

Incorrect term - Staminal tube.

Correct term - Pollen tube

Sensory nerve → Dorsal root ganglion → Sensory neuron → Motor neuron → Receptor

[Answer](#)

32. Differentiate between the following on the basis of what is given in brackets:

Biofertiliser and chemical fertiliser (an example of each)

[Answer](#)

33. Differentiate between the following on the basis of what is given in brackets:

Karyokinesis and cytokinesis (explain the terms)

[Answer](#)

34. Differentiate between the following on the basis of what is given in brackets:

WHO and Red Cross (any one function of each)

[Answer](#)

35. Differentiate between the following on the basis of what is given in brackets:

Mitosis and meiosis (number of daughter cells formed)

[Answer](#)

36. Differentiate between the following on the basis of what is given in brackets:

Pure and hybrid strains (definition)

[Answer](#)

37. Answer the following questions briefly:

38. Answer the following questions briefly:

Study Assignments, Solved Previous Year Papers, Questions and Answers, Free Forever.
Name any two vaccines and mention the diseases against which they give immunity.

Answer

39. Answer the following questions briefly:

Mention two reasons for the high birth rate in India.

Answer

40. Answer the following questions briefly:

State two effects of the smog observed in major cities.

Answer

41. Explain the term reflex action.

Answer

42. Expand the following biological abbreviations:

1. DNA

2. AIDS

Answer

43. State whether the following actions are 'voluntary action, simple reflex or conditioned reflex:

1) Blinking

2) Cleaning the table

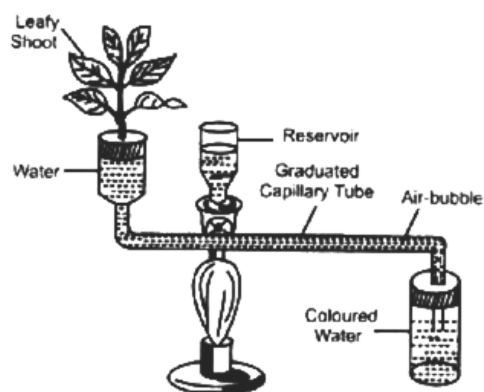
3) Playing on the keyboard

4) Salivating when food is put in the mouth Answer



Long Answer Type

44. Given below is an apparatus used to study a particular process in plants. Study the same and answer the questions which follow:



(i) Name the apparatus.

(ii) Mention one limitation of this apparatus.

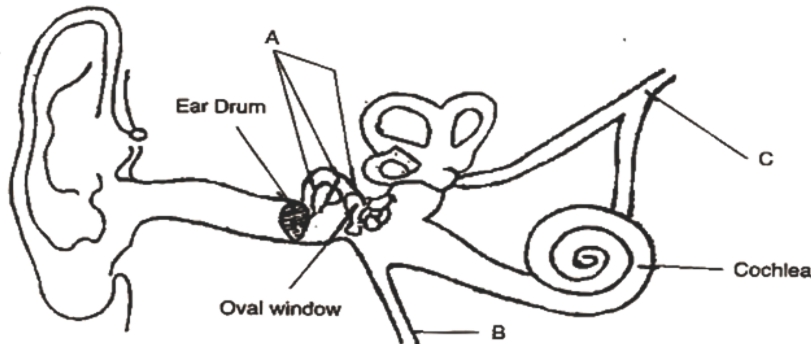
(iii) Which phenomenon is studied with the help of this apparatus?

Like. Share. Bookmark. Download. Make Notes. Print - Your Favourite Questions. Join www.zigya.com

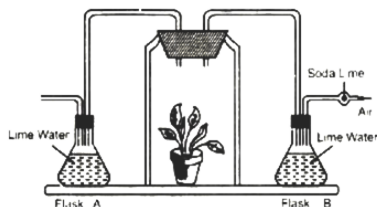
(v) What is the role of the air bubble in the experiment? [Answer](#)

Study Assignments, Solved Previous Year Papers, Questions and Answers, Free Forever.

45. Given below is the diagram of the human ear. Study the same and answer the questions which follow:

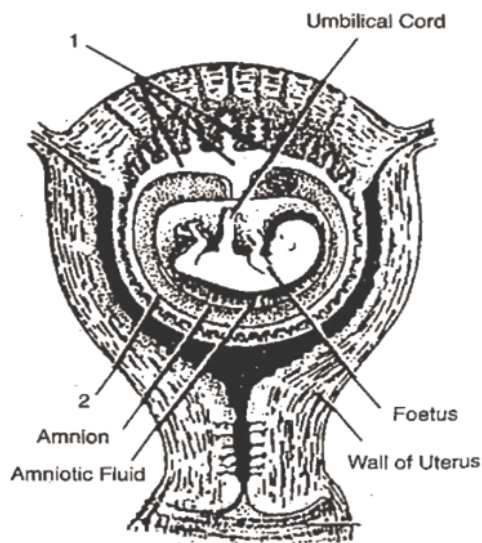


- (i) Give the biological term for the part labelled 'A' and state its function.
 (ii) Name the part labelled 'B' and state its function.
 (iii) Name the part labelled 'C' and state its function.
 (iv) Give the function of ear wax. [Answer](#)
46. Given below is an experiment, set up by a candidate, to study the process of respiration in plants. The candidate failed to get the expected result as two mistakes were made while setting up the experiment.



- (i) Identify and state the two mistakes made by the candidate.
 (ii) What is the role of soda lime in the experiment?
 (iii) What is the purpose of using lime water in flasks 'A' and 'B'?
 (iv) Give the chemical equation to represent the process of respiration. [Answer](#)
47. (i) Draw a neat and well-labelled diagram of the chloroplast.
 (ii) List the events taking place in the photo-chemical phase of photosynthesis.
 (iii) If you are planning an experiment to show the effect of light on photosynthesis:
 1) Will you select white light or green light? Justify your answer.
 2) Why would you select a destarched plant? [Answer](#)
48. Given below is a diagrammatic representation of a defect of the human eye.

- (i) Identify the defect.
- (ii) Mention two reasons for the above defect.
- (iii) State how the defect can be rectified.
- (iv) Name the part of the eye responsible for maintaining the shape of the eyeball. [Answer](#)
49. Name the hormones which lead to the following conditions:
- (i) Diabetes mellitus
- (ii) Growth of beard in women
- (iii) Myxoedema
- (iv) Gigantism
- (v) Exophthalmic goitre [Answer](#)
50. Study the diagram given below and then answer the questions which follow:

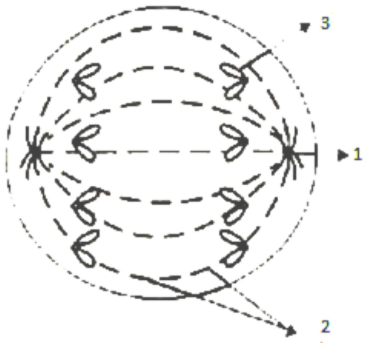


- (i) Name the parts labelled 1 and 2. State the function of each part.
- (ii) State any one function of amniotic fluid.
- (iii) What is the role of the umbilical cord in the development of the foetus?
- (iv) Name the part in the diagram which is endocrine in nature. [Answer](#)
51. State Mendel's law of independent assortment.
- (i) A homozygous tall plant (T) bearing red (R) flowers is crossed with a homozygous dwarf plant (t) bearing white flowers (r):
- 1) Give the genotype and phenotype of the F1 generation.
- 2) Give the possible combinations of the gametes which can be obtained from the F1 hybrid.
- 3) Give the dihybrid ratio and the phenotype of the offspring of the F2 generation when two

plants of the F1 generation above are crossed.

Like. Share. Bookmark. Download. Make Notes. Print - Your Favourite Questions. Join www.zigya.com

52. The diagram given below represents a stage during mitotic cell division in an animal cell.
Study, Assignments, Solved Previous Year Papers . Questions and Answers. Free Forever.



- (i) Identify the stage. Give a reason to support your answer.
- (ii) Name the parts labelled 1, 2 and 3.
- (iii) What is the chromosome number of the cell?
- (iv) Draw a neat, labelled diagram of the cell as it would appear in the next stage. Name the stage.

Answer

53. Give reasons for the following:
- (i) Plants begin to die when excess of soluble fertilisers are added to the soil.
 - (ii) Injury to the medulla oblongata results in death.
 - (iii) Gametes have a haploid number of chromosomes.
 - (iv) Green leaves are thin and broad.
 - (v) Lysosomes are termed suicidal bags of a cell.

Answer