BIOLOGY

BOOKS - VGS BRILLIANT BIOLOGY (TELUGU ENGLISH)

HAREDITY -FROM PARENT TO PROGENY

Review Of Your Previous Knowledge

1. How are new characters produced ?

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2. Are they (the new characters) inherited?

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3. Do the new characters have any role in the process of evolution?

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I Conceptual Understanding

1. What are variations ? How do they help organisms?

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2. When a tall pea plant (TT) is crossed with a dwarf plant (tt) what will be the F_2 generation?

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3. One experimenter cut the talls of parent rats, what could be the traits in offsprings?

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4. In a mango garden a farmer saw one mango tree with full of mango fruits but with a lot of pests. He also saw another mango tree without pests but with few mangoes. But the famer wants the mango tree with full of mango fruits and pest free. Is it possible to

creatwe new mango tree which the farmer wants? Can you explain how it is possible?

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5. Explain monohybrid experiment with an example. Which law of inheritance can we undrestand? Explain.

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6. Draw a checker board show the law of independent assortment wit a flow chart and explain the ratio

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7. How does sex determination happen in human?

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8. Explain the Darwin's theory of Natural selection with an example. What do you understand by the term natural selection ? Write drwin's theory of evolution.

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9. What are variations? Explain with a suitable example.

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10. What variations generally have you observed in the species of cow?

11. What are the characters Mendel selected for his experiments on pea plant?

12. In what way Mendel used the word Traits? Explain using an example.

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13. What are the differences that Mendel observed between parent and F2 generation?

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14. How does sex determination happen in human?

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15. what is evolution that is associated with analogous organs?

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16. How do scientists utillse the information about fossils?

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Ii Asking Questions And Making Hypothesis

1. Mendel selected a pea plant for his experiments. Mention the reasons for the selection of these plants.

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2. Write a short note on the law of " inheritance of acquired characters".

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Iv Information Skills And Projects

1. Collect information on the inherited traits in your family members and write a note on it.

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2. With the help of vien information write your comment on evidence of evolution. Mammals have forelimbs as do birds, reptiles and amphibians. The basic structure of the limbs is similar, though it has been modified to perform different functiions.

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3. Collect information about carbon dating method. Discuss with your physical science

teacher.

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V Communication Through Drawingm Model Making

1. Draw a checker board show the law of independent assortment wit a flow chart and explain the ratio

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2. Explain monohybrid experiment with an example. Which law of inheritance can we undrestand? Explain.

Watch Video Solution

3. Prepare a chart showing evolution of man through ages

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Vi Appreciation And Aesthetic Sense Values

1. Nature selects only desirable characters. Prepare a cartoon.

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Vii Application To Daily Life Concern To Biodiversity

1. What is your undertanding about survival of the fittest ? Give some situatios or examples that you observe in your surroundings.

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2. Write a monologue on evolution of a man to perform a stage show on the theatre day in your school.

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Activity 1

1. Think of your own family, what similarities do you share with your father and mother? Draw

a table to represent the similarities of some characters like colour of eye (cornea), colour of hair, shape of nose, shape of face, type of earlobe (attached or free) inner thumb markings, etc. Write your characters in one column and that of your parents in the other columns.

(Q). Is there any character in you, similar to that of your mother as well as your grandma?

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2. Think of your own family, what similarities do you share with your father and mother? Draw a table to represent the similarities of some characters like colour of eye (cornea), colour of hair, shape of nose, shape of face, type of earlobe (attached or free) inner thumb markings, etc. Write your characters in one column and that of your parents in the other columns.

(Q) Is there any character in you, similar only to that of your grandma?

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3. Think of your own family, what similarities do you share with your father and mother? Draw a table to represent the similarities of some characters like colour of eye (cornea), colour of hair, shape of nose, shape of face, type of earlobe (attached or free) inner thumb markings, etc. Write your characters in one column and that of your parents in the other columns.

(Q) How do you think these characters may have been inherited by you from grandma

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4. Think of your own family, what similarities do you share with your father and mother? Draw a table to represent the similarities of some characters like colour of eye (cornea), colour of hair, shape of nose, shape of face, type of earlobe (attached or free) inner thumb markings, etc. Write your characters in one column and that of your parents in the other columns.

(Q) . is there any character that is not present

in grandma but present in your mother and you ?

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5. Think of your own family, what similarities do you share with your father and mother? Draw a table to represent the similarities of some characters like colour of eye (cornea), colour of hair, shape of nose, shape of face, type of earlobe (attached or free) inner thumb markings, etc. Write your characters in one

column and that of your parents in the other columns.

(Q) where do you think your mother got tat charcter from ?

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Activity 2

1. Observe some of your friends and note their characters in the following table. Fill in yours as well. (Q) A. Compare your characters to that

of any one of your friend. How many characters did you find were similar among you and your friend?

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2. Observe some of your friends and note their characters in the following table. Fill in yours as well. (Q) B. Do you share m ore similar c haracters with your parents or with your friends?

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3. Observe some of your friends and note their characters in the following table. Fill in yours as well. (Q) C. Do you think that your differences from parents are same as differences from friends?why/ why not?

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Activity 3

1. Observe seeds in a pea or bean pod. You may observe several parts to arrive at a generalisation.

(Q). Can you find two similar seeds there?

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2. Observe seeds in a pea or bean pod. You may observe several parts to arrive at a generalisation.

(Q) B. what makes them vary?

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3. Observe seeds in a pea or bean pod. You may observe several parts to arrive at a generalisation.

(Q) C. Why are variations important? How are variations useful for an organism or a population?

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Activity 4

1. Let us do the following activity to understand the mendelian principles of heredity. Materaials required:

a. 3cm length and 1 cm breadth chart pieces -4

b. 2 cm length and 1 cm breadth chart pieces -4

c. Red byuttons -4

d. white buttons -4

e. chart, scale, sketch pen penil, 2 bags.

Method: Prepare a chart with 2x2 boxes along with numbe and symbol as shown in the figure.

Game 1: Monohybrid cross (starting with hybrid parents) To start with take 1,2 or 3,4 . In case you start 1,2 pik all the 16 log and short pieces and prepare such paris in each of which you have a long and short piece. Take 4 pairs each of long and short strips and put them in two separate bags. Now each bag contains 8 strips (4 long and 4short). One bag say 'A' represents mael and the bag 'B' represents female . Now rendomly pick one strip each from bag A and B and put them together in the 1 on the chart. Keep picking out the strips and arrange them in the same manner till your

bags are empty. Same time your boxes in the chart are filled with paris of strips. you might have got the following combinations, two long strips, one long and one short strip, two short strips.

(Q) A. what is the number of long strip paris?

Watch Video Solution

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strips.

(Q) B. What is the number of one long and one short pairs?

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3. Let us do the following activity to understand the mendelian principles of heredity. Materaials required:

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(Q) C. What is the number of short strip pairs?

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4. Let us do the following activity to understand the mendelian principles of heredity. Materaials required:

a. 3cm length and 1 cm breadth chart pieces -4

b. 2 cm length and 1 cm breadth chart pieces -4

c. Red byuttons -4

d. white buttons -4

e. chart, scale, sketch pen penil, 2 bags.

Method: Prepare a chart with 2x2 boxes along with numbe and symbol as shown in the

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Game 1: Monohybrid cross (starting with hybrid parents) To start with take 1,2 or 3,4 . In case you start 1,2 pik all the 16 log and short pieces and prepare such paris in each of which you have a long and short piece. Take 4 pairs each of long and short strips and put them in two separate bags. Now each bag contains 8 strips (4 long and 4short). One bag say 'A' represents mael and the bag 'B' represents female . Now rendomly pick one strip each from bag A and B and put them together in the 1 on the chart. Keep picking out the strips

and arrange them in the same manner till your bags are empty. Same time your boxes in the chart are filled with paris of strips. you might have got the following combinations, two long strips, one long and one short strip, two short strips.

(Q) D. What is the percentage of each type? also find their ratios.

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5. Let us do the following activity to understand the mendelian principles of heredity. Materaials required:

a. 3cm length and 1 cm breadth chart pieces -4

b. 2 cm length and 1 cm breadth chart pieces -4

c. Red byuttons -4

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bags are empty. Same time your boxes in the chart are filled with paris of strips. you might have got the following combinations, two long strips, one long and one short strip, two short strips.

(Q) E. What can you coclude from this game?

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Activity 5

1. observe the below diagram showing variation in beetle population and its impact.

Let us consider a group of eweleve beetles. They live in bushes on green leaves. Their population will grow by sexual reproduction. So they were able to generate variations in population. Let us assume crows eat these red beetles. If the crows eat more Red beeles, their population is slowly reduced. let us disuss the above 3 different situations in detail.

A. Situation-1 : in this situation a colour variation arises during reproduction. So that

there appears one beetle that is green n colour instead of red moreover this green coloured beetle passes it's colur to it's offspring (Progeny). So that all its progeny are green. Crows cannot see the green coloured beetles on green leaves of the bushes and therefore crows cannot eat them. But crows can see the red beetles and eat them As a result there are more and more gren beetles than red ones which decrease in their number . the variation of colour in beetle green gave a survival advantage to green beetles' than red beetles. in other word it was naturaly selected.

We can see that the natural selection was exerted by the crows. The more crows there are, the more red beetles would be eaten and the more number of green beetles in the population would be. thus the natural selection is directing evolution in the beetle population. it results in adaptation in the beetle population to fit in their envirnment better. Let us think of another situation.

Situation-2: In this situation a colour variation occurs again in its progeny during reproducation but now it results in blue colour beetles instead of red colour beetle.

this blue colour beetle can pass its colour to its progeny. So that all its progeny are blue. crows can see blue coloured beetles on the green leaves of the bushes and the red ones as well. And therefore crows can eat both red and blue coloured beetles. In this case there is no survival advantage for blue coloured beetles as we have seen in case of green coloured beetles What happens initially in the population, there are a few blue beetles, butmost are red. Imagine at this point an elephant comes by and stamps on the bushes where the beetles live. this kills most of the

beetles. By chance the few beetles survived are mostly blue. Again the beetle population slowly increases. But in the beetle population most of them are in blue colour. Thus sometimes accidents may also result in changes in certain characters of the population. Characters as we know are governed by genes. Thus there is change in the frequency of genes in small populations. this is known as genetic drift, which provides diversity in the population.

Situation-3: In this case beetles population is increasing, but suddently bushes were

affected by a lant disease in which leaf material were destroyed or in which leaves are affected by this beetles got les food material. So beetles are poorly nourished. So the weight of beetles decrease but no changes take place in their genetic material (DNA). After a few years the plant diseases are eliminated. Bushes are healthy with plenty of leaves.

(Q) What do you think will be conditin of the beetles?

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Activity 6

1. Let us observe different stages of development of vertebrate embrys. Try to find out similarities and differences and discuss with your friends.

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1 Mark Questions

1. What will happen if sperm containing X chromosome fertilizes the ovum?

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2. Were all your traits similar to that of your parents?

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3. Do embryological evidences indicate that frogs have evolved from ancestors of fish?

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4. Does the life history of every individual exhibit the structural features of its ancestors?

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2 Mark Questions

1. Is variation all about apparent differnce ? Or is it about some subtle differences as well that we most often overlook?

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2. How do parent plants pass on their traits to the seeds?

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3. Will the seeds from tall plants always produce new tall plants?

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4. What should be the perecentage of each type of plants in F2 generation produced in dihybrid crossbetween pea plants with yellow, mooth seeds and green wrinkled seeds?

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5. Who decides the sex of the baby -mother or father ?

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6. How does the evolution of organisms have taken place?

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7. Think why ancient human beings travelled from one place to other and how they travelled.

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4 Mark Questions

1. How does evolutin take place?

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2. Is the sex also a character or trait? Does it follow mendel's law of dominance?

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3. Are birds and bats more closely related to each other than to sauirrels or lizards?

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Think Discuss

1. In a forest there are two types of deer, in which one type of deer can run very fast . Whaereas second type of deer can not run as fast as the first one. Lions, tigers hunt der for their food. Imagine which type of deer is going to survive in the ofrest, which type of deer population is going to be eliminated? And why ?

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Objective Assignment Fill In The Blanck

1. The process of acquiring character or trait is called .....

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2. mendel's experiment explains about .....

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3. the four characters observed in the experments on law of independent

assortment are .....

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4. If we cross pollinate red flower plant with white flower we will get ..... percent of recessive trait plants.

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5. TT or Yy, Tt or Yy are responsible for a ..... character.

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6. Female baby having 23 pairs of chromosomes at the age of 18 years, has ..... pair autosomes, and .... Of sex chromosomes.

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7. The population grows in ..... Progression whereas food sources grow in ..... Progression.

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8. A goat which walks properly can't live for a long time. According to darwin, this represents .....

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9. forelimb of whale is for swimming whereas in horse it is used for .....

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10. What is the study of fossils called?

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Objective Assignment Choose The Correct Answer

1. Which of the following is not a variation in rose plant?

A. Coloured petals

B. spines

C. Tendrils

D. leaf margin

Answer:

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2. According to mendel, alleles are

A. Pair of genes, responsible for character

B. Gene

C. Productionof gametes

D. recessive factors

Answer: B

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3. Natural selection means

A. Nature selects desirable characters

B. Nature rajects undesirable characters

C. Nature reacts with an organism

D. A, B

Answer: D

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4. Palaeontologists deal with

A. Fossilised Embryological evidences

B. Fossil evidences

C. Fossilised vestigial organ evidnces

D. All

Answer: B

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Creative Questiions For New Model Paper 1 2 Mark Questions

1. The above flow-chart represents ltBrgt 

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2. This animal is assorciated with the studies of a scientist. Name the scientist

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3. Who observed the above shown variations?

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4. what does the above picture represent?

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5. Name the type of evidences of evolution shown in above picture.

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6. Can you name the extinct connecting link

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7. Identify the scientist. He was a father in a church. He made his experiments on pea plants. He proposed principles of inheritance.

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8. Identify the scientist. They discovered the structure of DNA and got the Nobel prize

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9. indentify the scientist. He was the first person to propose the theory of evolution. He took girffee to explain his theory.

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10. indentify the scientist. . He voyaged in HMS beagle. He proposed the theory of natural selection. He made his observations in Galapagos islands.

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11. Indentify the scientist. He wrote a letter to charles Darwin about the studies in the indonesian islands. The whole was about Natural selection.

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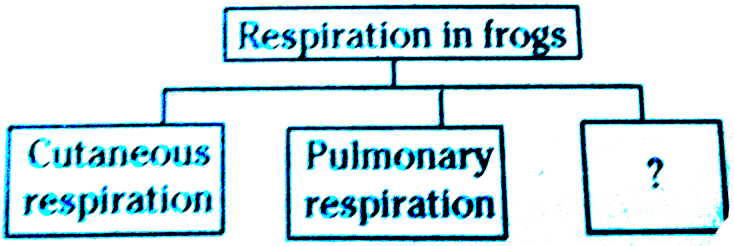
12. "Pupulation grows in geometric progression and food sources increases in arithmetic progression. Who proposed this?

Watch Video Solution

13. Observe the flow chart and complete the blanks .



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14.

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15. Indentify the scientist. He exprimented on rats. He disproved the theory of lamarkism. He proposed germplasm theory

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16. Complete the blanks. Darwin made his experiments on ..... (1) in ..... (2) islands.

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17. complete the blanks. The scientific name of man is ..... (1) this study of human evolution is .....(2)

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18. complete the blanks. In monohybrid cross, the genotypic ratio is .... (1)and the phenotypic ratio is .... (2).

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19. Complete the blanks. ..... (1) is called moving museum of vestigial organs. .....(2) is an example for vestigial organ in digestive system

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20. I was the connecting link between reptiles and birds. Now I was extinct who am I?

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21. I was found in yamanapalli of Adilabad district. I was a fossil. Who am I?

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22. I am an allosome. I decide the sex of the baby. Who am I ?

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23. I carry the characters from parents and grand parents to the off springs. Who am I?

Watch Video Solution

24. I am an ecological pyramid. I represent the quantitiy of living matter at each trophic level. Who am i?

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25. We are structurally different but functionally similar. Who are we?

Watch Video Solution

26. We are structurally different but functionally similar. Who are we?

Watch Video Solution

27. indentify the mis-matched pairs.

1. Man -Homosapiens

2 Archeopteryx- connecting link

3 Appendix -Digestive gland

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28. identify the mis-matched pairs

1. allosomes in males-xx

2. Allosomes in females-xy

3. factors- Genes

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29. identify the mis-matched pair.

1. survivial of the fittest -lamark

2. Germplasum theory -weismann

3. laws of inheritance-mendel

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30. identify the mismatched pair.

1. Homologous organs -wings of a bird and wings of an insect.

2. Analogous organs- forelimb of whale and forlomb of horse

3 Vestigial organ - Mammary glands in males.

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31. Read the sentence, find the error and rewrite it. The origin of species was written by A.R Wallace.

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32. "Pupulation grows in geometric progression and food sources increases in arithmetic progression. Who proposed this?

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33. indentify the scientist. They worked together on Drosophila in the year 1956 and identified sex linked traits in Drosophila in columbia university.

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34. Read the sentence, find the error and rewrite it. Charles darwin was highly influenced by population theory of AR Malthus.

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35. complete the blanks. Variatios which are s useful to an individual are .... (1) and those which are not useful are .....(2)

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36. Complete the blanks. The demerit of Darwinism is ..... (1) it was properly understood after the discovery of .....(2)

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37. Which of the following group does not consist of vestigial organs of man?

A. Wings of a bird ad wing of a butterfly

B. pinna, Appendix, Mammary glands in men, Hair on skin

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38. Which of the following group does not represent the scientist who are associated with evolution?

A. Setten, Morgan, Lamark, Darwin

B. Van neil, Priestly , Lavoisier, Pelletier

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39. complete the blanks. Homologous organs are examples for .....(1) type of evolution. Analogous organs are examples for .....(2) type of evolution.

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40. complete the blanks. Scientists use .... (1) method to calculate the age of fossils. In ... (2) village of adilabad, ketosaures was found.

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41. complete the blanks. So metimes, vestigial organs are abruptly appear even in human beings. This phenomenon is called .....(1) Eg: baby with a tail. There are .... (2) vestigial organs in human beings.

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42. indentigy the mis-matched pair.

1. Primitive man -Africa

2 . Age of fossils -carbon dating method

3. Atavism- hair on skin

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43. Struggle for existence: ?, principles of geology: Charles lyell.

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44. Which of the following group represents the characters selected for his expreiment in pea plant by mendel?

A Size of the flower, position of seed, length of flower

B. colour of the flower . Position of flower colour of the seed.

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45. Which of the following statements is not true? Write it.

1. Malthus theory was written in An essay on the principles of population.

ii. The orgini of species was written by charles Lyell.

iii. The theory of Natural selection was proposed by charles Darwin.

iv. jean Baptist lamark proposed a theory of inheritance of acquired characters.

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46. Which of the following statement is NOT true about the Mendel's selection of garden pea for his experiment write it.

a. Well defined characters

b. Bisexual flowers

c. predominantly self fertilisation

d. Cheap in cost

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47. He studied on rats by cutting their tails. Name that scientist.

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48. indentify the scientist. He was the first person to propose the theory of evolution. He took girffee to explain his theory.

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49. The scientist who disproved the theory of inhertiance of acquired characters.

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50. Who proposed the theory of natural selction?

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51. Famale baby having 23 pairs of autosomes at the age of 18 years, has how many pairs of autosomes and of sex charomosomes?

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52. Who hypothesised that each character is expressed due to a pair of factors or alleles.

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53. Who tested the theory of inheritace of a aquired characters by his experiments on rats for 22 generations?

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54. Who felt that large changes occureed due to accumulation of small changes?

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55. Who concluded that natural selection contributed to arising of new species?

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56. Journal of Linnaean Society about natural selection was published by

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57. Find the missed one.

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58. HMS beagle : Charles Darwin, indonesian islands: .....

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59. Kangaroo: Australia:: First Man: .....?.....

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60. indentify the mismatched pair .

1 Connecting link - Dinosaur

2. Homosapiens - Gorilla

3. Evolution - Process of attaining changes

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61. Darwin: Fich birds :: Mendel: .....?.....

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62. indentify the mismatched pair.

1. Zoogeography - Speciation

2 Genetics -Study of heardity

3. Embryology- Study of fossils

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63. indentify the mismatched pair.

1. Phenotypic ratio of F2 genration -1:2:1

2 Genotypic ratio of F2 generation -3:1

3. Phenotypic ratio of dihybrid cross-9:3:3:1

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64. Palaeontology: fossils ::

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65. identify these two great scientists associated with genetics.

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66. This picture is associated with

View Text Solution

67. This figure is assopciated with

View Text Solution

68. These are best example for

View Text Solution

69. These are best examples for

View Text Solution

70. flow chart

The branch of science that deals with the study of the above figure

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71. Who is called the father of genetics?

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72. What is the cause of variations?

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73. Identify the scientist. They discovered the structure of DNA and got the Nobel prize

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74. Who is responsible for the sex in the new born baby?

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75. What will happen if sperm containing X chromosome fertilizes the ovum?

Watch Video Solution

76. What will happen if sperm containing Y chromosome fertilizes the ovum?

Watch Video Solution

77. Who proposed the law of inhertiance?

 Watch Video Solution

78. Which plant did Mendal select for his experiments?

 Watch Video Solution

79. Who discovered genes?

 Watch Video Solution

80. Name the scientists associated with the study of sex linked inheritance in Drosophil.

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81. Phenotypic ratio of monohybrid test cross is:

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82. What is the genotypic ratio of monhybrid cross?

Watch Video Solution

83. What is the phenotypic ratio of dihybrid cross?

Watch Video Solution

84. What are Mendel's factors?

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85. Who proposed theory of inhertitance of acquired characters?

Watch Video Solution

86. Which animal did Lamarck take to explain his theory?

Watch Video Solution

87. Who conducted an experiment on rats to test the Lamarck's theory?

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88. Who proposed the germplasm theory?

Watch Video Solution

89. Who proved that bodily changes are not inherited?

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90. In the world survey ship, Darwin travelled a number of places. Name the shipin which he travelled.

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91. In which islands darwin made his observations on nature's selection?

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92. On which birds darwin observed the diversity in their structures?

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93. What is the book written by charles darwin ?

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94. Who wrote the book principles of geology'?

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95. Who is the author of An Essay on the Principles of population?

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96. "Pupulation grows in geometric progression and food sources increases in arithmetic progression. Who proposed this?

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97. where did A.R. wallace made his experiments on variations?

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98. Who proposed Survival of fittest" ?

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99. Give example for homologous organs.

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100. which type of evolution do we understand from hmologous organs?

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101. Give example for analogous organs.

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102. Name the organs which are same in their structure and performing different functions.

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103. Name the organs which are fifferent in their structure and performing similar functions.

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104. what is evolution that is associated with analogous organs?

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105. Name the branch of secience that deals with the study of human evolution.

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106. What is the study of fossils called?

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107. what is the study of the development of an organism from egg to adult stage?

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108. Name the evidences of ancient life forms which have been preserved by natural processes.

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109. What is the connecting link between reptiles and birds?

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110. Where was the fossil of ketosaures preserved?

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111. Where was the fossil of ketosaures preserved?

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112. What is the scientific name of human being?

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113. When did early human like form appear on the earth?

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114. When did Homosaplens appear on the earth?

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115. In which continent the first human appeard?

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116. Name the type of organs which remain under developed and unusde in present day organisms.

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117. How many vestigial organs are present in man

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118. Who is called as moving museum of vestigial organs'?

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119. Give an exmaple for vestigial organ in our body.

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120. what do yu mean by natural selection?

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121. what did charles darwin observe in Galapagos islands?

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122. What are the characters Mendel selected for his experiments on pea plant?

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123. What is the perecentage of plants that exhibit dominant character in F2 generation?

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124. How many characters are responsible for producing a particular character or trait, according to Mendel?

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125. if both the alleles ae same for a character, this condition is said to be

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126. If the alleles are different for a character, then this condition is said to be ?

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127. One of the allele is dominant over other which law of mendel explain this?

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128. Each parent passes a randomly selected copy of only one of the allele to an offspring wchih law of mendel explain this?

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129. "The factors for each pair of characters assort independently of the other pair" Which law of mendel explain this?

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130. What is the number of chromosomes in human beings?

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131. How many number of pairs of autosomes are present in humans?

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132. How many number of pairs of allosomes are present in humans?

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133. What is the reason for the variations in offsprings?

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134. Name the method, which helps in determining the age of fossils.

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135. A deer in a forest can not run properly and it is not possible for it to live for a long time which law of darwin explains it?

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136. What do you call the changes in the frequency of genes in small populatons?

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137. What do you name the small changes within the species?

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138. What is the result of micro evolution?

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139. What would be the result of genetic drift ?

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140. What provides the evidences for the evolution?

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Creative Questiions For New Model Paper 1 Mark Questions

1. Who decides the sex of the baby -mother or father ?

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2. What examples you will give to prove that Lamarckism is not correct ?

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3. How are new characters produced ?

Watch Video Solution

4. Which chromosomes determine the sex in human beings?

 Watch Video Solution

5. Why man is called a moving museum of vestigial organs?

 Watch Video Solution

6. What are variations ? How do they help organisms?

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7. What is F1 generation?

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8. What is F2 generation?

Watch Video Solution

9. What is F3 generation

Watch Video Solution

10. What is phenotype ratio?

Watch Video Solution

11. What is the genotypic ratio?

Watch Video Solution

12. State the law of independent assortment.

Watch Video Solution

13. What are genes?

Watch Video Solution

14. What is allele?

Watch Video Solution

15. What are homozygous alleles?

 Watch Video Solution

16. What is heterozygous allele?

 Watch Video Solution

17. What is law of dominance?

 Watch Video Solution

18. State the law of segregation.

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19. What are inherited traits?

Watch Video Solution

20. What is heredity?

Watch Video Solution

21. What is inheritance?

Watch Video Solution

22. What are autosomes?

Watch Video Solution

23. What are allosomes?

Watch Video Solution

24. Write a short note on the law of " inheritance of acquired characters".

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25. what is inheritance of acquired characters?

Watch Video Solution

26. What is meant by survival of the fittest?

Watch Video Solution

27. What is micro evolution?

Watch Video Solution

28. What is macro evolution or speciation?

Watch Video Solution

29. Write a brief note on homologous organs.

Watch Video Solution

30. what is evolution that is associated with analogous organs?

Watch Video Solution

31. What is embryology?

Watch Video Solution

32. What are fossils?

Watch Video Solution

33. What is palaeontology?

Watch Video Solution

34. Name the method, which helps in determining the age of fossils.

Watch Video Solution

35. What is human evolution?

Watch Video Solution

36. What is the cause of variations?

Watch Video Solution

37. What is divergent evolution? Explain taking an example of plants.

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38. What is convergent evolution?

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39. Where were the fossils of dinosaurs collected?

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40. what are vestigial organs?

Watch Video Solution

41. indentify the scientist. He was the first person to propose the theory of evolution. He took girffee to explain his theory.

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42. Who proposed theory of inhertitance of acquired characters?

Watch Video Solution

43. Who proved that bodily changes are not inherited?

Watch Video Solution

44. Who proposed the theory of natural selction?

Watch Video Solution

45. What does the theory of natural selection state?

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46. How many vestigial organs are present in man

Watch Video Solution

47. Give an exmaple for vestigial organ in our body.

Watch Video Solution

48. Who is called as moving museum of vestigial organs'?

Watch Video Solution

49. How can one change adopted perform different functions?

Watch Video Solution

50. Why are traits acquired during the lifetime of an individual not inherited?

Watch Video Solution

51. What factos could lead to rise of a new species?

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52. Can the wing of abutterfly and the wing of a bat be considered homologous organs?Why or why not ?

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53. If the sperm bearing 'Y' chromosome fertilizes the egg, the child born will not be entirely like his father, whyu is it so?

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54. Name the chemicals which were essential for origin of species.

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55. Name two organisms in which sex determination is regulated by environmental factors.

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Creative Questiions For New Model Paper 2 Mark Questions

1. Write phenotypic and Genotypic ratio of table given at side.

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2. What are variations? Explain with a suitable example.

Watch Video Solution

3. Who decides the sex of the baby, mother or fater? Explain with a flow chart.

View Text Solution

4. Define and terms phenotype and genotype.

Watch Video Solution

5. What questions you will ask a palaeontologist about fossils?

Watch Video Solution

6. Observe the checker board and answer the following questions.

i. write phenotypic ratio of monohybrid cross.

ii. How many heterozygous plants are present in the checker board?

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7. How does the embryological evidences support that Evolution has taken place?

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8. Why man is called a moving museum of vestigial organs?

Watch Video Solution

9. If you meet a historian to clarify your doubt on Man has first born in African continent', what type of questions will you ask him /her

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10. What is the difference between phenotype and Genotype?

Watch Video Solution

11. How do traits get expressed according to mendel?

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12. What are the differences between homozygous and heterozygous?

 Watch Video Solution

13. Write a short note on the theory of Natural selection"

Watch Video Solution

14. What is meant by survival of the fittest?

Watch Video Solution

15. Write a brief note on homologous organs.

Watch Video Solution

16. Some organisms or species adapt better and survive in a community of organisms. Why do you think this may happen ?

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17. Take a mirror and observe your facial features nose, chin foreshead, ear lobes, hair etc. Whom do you resemble? Your father Your

mother Or your grand- parents List out them in the table.

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18. What shall be the genotypic ratio in F_2 generation of monohybrid cross?

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19. The human hand , cat paw and horse foot when studied in detail show show the same

structure of ones and point towards a common origin.

i. What do you conclude from this?

ii. What is the term given to such structures?

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20. If a trait 'A' exists in 10% of a population of an asexually reproducing species and a trait 'B' exists in 60% of the same population, which trait is likely to have arisen earlier?

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21. Answer the questions.

A.What does it represent?

B. What phenotypic ratio will be got in F1 generation

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22. The cross beteen Hybrid tall (Tt) and dwarf (tt) what will be F1 generation progency write phenotypic and genotypic ratio

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23. What are the differences between monohybrid cross and dihybrid cross?

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24. What will be phenotypic and genotypic ratio if cross between pure Red (RR) and hybrid Red (Rr)?

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Creative Questiions For New Model Paper 4 Mark Questions

1. Fossils are the precious evidences preserved by the nature to help us knowing about ancient life forms. Write the information you collected about fossils.

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2. a. If a sperm with 'X' chromosome fertilizes with an ovum with 'X' chromosome, what will be the gender of the baby ?

b. Who determines the sex/gender of the baby, mother or father?

c. Is it correct to blame the mother for giving birth to a baby girl?

d. Are all our characters resembles our parents?

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3. Observe the diagram and answer the following questions. Vamsi and priya are newly married couple. They want to give birth to a male child.

a. Draw a probable diagram showing transfer of chromosomes from parents to give birth to male child.

b. Who determines the sex of the bab How can you say?

b. Who determines the sex of te baby? How can you say?

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4. i. What does the given flow chart indicate?.

ii. What will happen if the sperm containing 'X' chromosomes fertillses the ovum?

iii. Who decides the sex of the baby - Mother or father ?

iv. How many pairs of chromosomes are present in offspring?

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5. What is phenotype and genotype ? Explain them with the help of mendel's monohy-brid cross.

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6. What are Mendel's laws of inhertitance? What are the reasons to choose pea plant for his experiment?

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7. Write a bref note on Homologos and analogous organs.

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8. Observe the flow chart and answer the following.

i. What does the flow- chart represent?

ii. What is the phenotype characters in F1 generation?

iii. What is the genotype, Phenotype ratio of F2 generation

iv. What laws of inheritance did you understand by this flow chart?

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9. Keep in mind Mendel's exprriments and write what you know about the following concepts?

a. Pure breed

b. Phenotype

c. Genotype

d. Alleles

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10. Write a short note on the theory of Natural selection"

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11. what is genetic drift? Explain how it provides diviersity in the population. ?

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12. How are new species evolved?

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13. Write a note on current evolution. What is its significance ?

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14. What is meant by law of dominance? To know more about law of dominance, what kind of questions you will ask?

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15. What are the hypothesis assumptions and outcomes of mendel's experiments with pea plants?

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16. How would you appreciate Grego Johann Mendel's contribution to the genetics?

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17. How would you appreeciate charles Robert Darwin for his work on evolution?

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18. Write a small essay supporting that genes are the cause to form different characters in organisms.

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19. Sujatha 's in -laws worried for having daughter in her second delivery. How will you make them agree that she is not all responsible for hafing daughter?

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20. Write a short note on the law of " inheritance of acquired characters".

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