



Q5. In agarose gel electrophoresis, DNA molecules of different lengths are separated on the basis of their

- (1) Charge only      (2) Size only      (3) Charge to size ratio      (4) Both (1) & (3)

Q6. What is biopatents? State the initiative taken by the Indian Parliament towards it.

Q7. Differentiate between albuminous and non albuminous seeds giving examples of each.

Q8. A pea plant with purple flower crossed with white flower plant produces 50 plants with purple flowers. On selfing, these plants produce 482 plants with purple flowers and 162 with white flowers. Explain which type of genetic mechanism is related with these results?

Q9. CFC's are widely used as refrigerators. Then why it is suggested to reduce its emission as far as possible?

Q10. The number of trophic level in a food chain is limited. Justify.

Q11. Landfills are not much a solution for getting rid of solid wastes. Why?

Q12. What are ewastes? Why are they creating more problems in developing countries in comparison to developed countries?

Q13. How does RNA interference help in developing resistance in tobacco plant against nematodes infection?

Q14. a) Describe the enzyme replacement therapy to treat deficient patient?

b) Show diagrammatically how endonucleases work?

Q15. Show the carbon cycle with the help of a simplified model.

Q16. Write the scientific name of a parasite that causes amoebiasis. Explain the transmission and symptoms of the disease.

Q17. How is innate immunity different from the immunity that you acquire through vaccination?

Q18. Describe any two ways by which innate immunity works.

Q19. What are cannabinoids? From which plant cannabinoids are obtained? Which part of the body is affected by consuming these substances?

Q20. In a flowering plant microspore mother cell produces four male gametophytes while as megaspore mother cell produces one gametophyte. Explain.

Q21. During a medical investigation, an infant was found to possess an extra chromosome X. Describe the symptoms the child is likely to develop in later stages.

Q22. Why did Hershey and Chase used radioactive sulphur and radioactive phosphors in their experiment? Write the conclusion they arrived at and how?

Q23. Explain mutualism with the help of any two examples. How is it different from commensalism?

Q24. Enlist four harmful effects cause to the human living in area having polluted air. Suggest two measures to reduce air pollution.

Q25. a) Name the hormones secreted by Corpus luteum and placenta. Write any two functions of these hormones.

b) Name the stage in human female reproduction where corpus luteum and placenta co-exist.