1. 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?
2. What are the different ways in which individuals with a particular trait may increase in a population?
3. Why are traits acquired during the lifetime of an individual not inherited?
4. Why are small numbers of surviving tigers a cause of worry from the point of view of genetics?
5. What factors could lead to the rise of a new species?
6. Who is known as the father of genetics?
7. Given expanded form of DNA.
8. Name the scientist who first isolated DNA from the nucleus of the pus cells.
9. How does the creation of variations in a species ensure survival?
10. How do Mendel experiments show that traits may be dominant or recessive?
11. A man with blood group A marries a woman with blood group O and their daughter has blood group O. Is this information enough to tell you which of the traits blood group A or O is dominant? Why or why not?
12. Will geographical isolation be a major factor in the speciation of a self-pollinating plant species?
13. Will geographical isolation be a major factor in the speciation of an organism that reproduces asexually? Why or why not?
14. What do you understand by double helical structure of DNA? Who proposed this structure?
15. (a) How is the sex of the child determined in human beings?
    (b) Why Mendel selected garden pea plant for his experiments?
16. In evolutionary terms, can we say which among bacteria; spiders, fish and chimpanzees have a 'better' body design? Why or why not?
17. A study found that children with light-coloured eyes are likely to have parents with light coloured eyes. On this basis, can we say anything about whether the light eye colour trait is dominant or recessive? Why or why not?
18. What evidence do we have for the origin of life form inanimate matter?
19. Name two common vestigial organs present in human beings.
20. Give two examples where sex determination is regulated by environmental factors.
21. What is Archaeopteryx? What is its significance in evolution?
22. Why does the tadpole of frog resemble a fish?
23. Give an example of characteristics being used to determine how close two species are in evolutionary terms.
24. Can the wing of a butterfly and the wing of a bat be considered homologous organs? Why or why not?
25. What are fossils? What do they tell us about the process of evolution?
26. Give reason why:
    (i) All organisms have many common features.
    (ii) Fossils furnish the direct and most reliable evidence for evolution.
27. Define the terms homogametic and heterogametic.
28. Differentiate between artificial selection and natural selection.
29. (a) How do we know the age of fossils?
    (b) What are inherited and acquired traits?