1. Answer the following
a. If a trait A exists in 10% of a population of an asexually reproducing species and a trait B exists in 60% of the sa me population, which trait is likely to have arisen earlier?
b. How does the creation of variations in a species promote survival?
c. How do Mendel's experiments show that traits are inherited independently?
d. A man with blood group A marries a woman with blood group O and their daughter has blood group O. Is this inf ormation enough to tell you which of the traits – blood group A or O – is dominant? Why or why not?

2.
a. Explain sexual reproduction in flowering plants with diagram
b. Why is vegetative propagation practised for growing some types of plants?
c. Can you think of reasons why more complex organisms cannot give rise to new individuals through regeneration?

3.
a. Explain excretion in human beings with diagram
b. Draw schematic sectional view of human heart and explain.
c. How is oxygen and carbon dioxide transported in human beings?
d. How are the lungs designed in human beings to maximize the area for exchange of gases?

4. How can you prove experimentally that CO_2 is needed for photosynthesis?