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Question 1. A Mendelian experiment consisted of breeding tall pea plants bearing violet flowers with short pea plants bearing whfte flowers. The progeny all bore violet flowers, but almost half of them are short. This suggests that the genetic make-up of the tall parent can be depicted as
(a) TTWW (b) TTww
(c) TtWW (d) TtWw
Answer: (c) Genetic make-up of tall plant can be depicted by TtWW.

Question 2. An example of homologous organs is
(a) our arm and a dogs fore-leg.
(b) our teeth and an elephants tusks.
(c) potato and runners of grass.
(d) All of the above.
Answer: (d) Both organs in all options have same basic structural design but have different functions and appearance.

Question 3. In evolutionary terms, we have more in common with
(a) a Chinese school-boy.
(b) a chimpanzee.
(c) a spider.
(d) a bacterium.
Answer: (a) A Chinese school-bpy is also a human being.

Question 4. 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?
Answer: We can say that light eye colour trait is dominant because only dominant traits are expressed in the first generation.

Question 5. How are the areas of study - evolution and classification— inteilinked?
Answer: Evolution and classification are interlinked with each other in many ways. Classification is the most important term to explain evolution. It is based on the similarities and differences between two species or among two organisms. More closer the characteristics, the moe doser is the evolution and chances to be in the same group of classification. Thus, the classification of species is a reflection of their evolutionary relationship.

Question 6. Explain the terms analogous and homologous organs with examples.
Answer: Analogous organs are those organs which have different basic structural designs and developmental origins but have similar appearance and perform similar functions.
Examples: Wings of an insect and wings of a bat.
Homologous organs are those organs which have the same basic structural design and developmenta' origin but have different functions and appearance.
Examples: Forelimbs of frog and forelimbs of human.

********** END **********