INDIAN SCHOOL NIZWA - WORKSHEET

BIOLOGY

CH:9- Heredity and Evolution (Board Questions)

Name: _____ Date:_____ Class: XII Sec: ___

1. Why is the progeny always tall when a tall pea plant is crossed with a dwarf pea plant?
2. "Experience of an individual during its lifetime cannot be passed on its progeny and cannot direct evolution". Justify this statement giving examples.
3. Explain how gene expresses itself in a cell? Why are we somewhat similar to our parents yet not identical to them?
4. List three main factors responsible for the speciation and briefly describe each one of them.
5. Organs like wings in birds are an advantage to an organism. Did they appear in different stages or were formed due to a single sudden change in them. Explain.
6. "Variations keep on accumulating during reproduction and do not disappear in next generation". Justify this statement by giving reasons.
7. Explain giving examples how artificial selection has helped in the formation of newer varieties of cauliflower.
8. What are fossils? Explain the importance of fossils in evolutionary relationship.
9. (a) Name the scientist who worked out the rules of inheritance. (b) Mention any two strategies that are used by different species for determining sex of their new borns.
10. (a) Differentiate between dominant and recessive traits. (b) 'Genes control traits'. Explain this statement with an example.
11. (a) Explain the difference between analogous and homologous organs.
    (b) Identify the analogous and homologous amongst the following : Wings of an insect, wings of a bat, forelimbs of a frog, forelimbs of a lizard.
    (c) How do homologous organs provide evidence in support of evolution?
12. Mendel crossed the round and green seeded pea plants with the wrinkled and yellow seeded pea plants. Give the phenotypic ratio of F2 generation.