VII. ORGANIC EVOLUTION

(1 x 2) + (2 x 4) = 10 Marks

ROOT POINTS

1. **Organic** means **'living organisms'**; evolution means **'unfold'.**
2. **Organic evolution** is the development of various types of more complex organisms.
3. **Postulates of Darwin's theory of natural selection:** (i) Over production (ii) **Struggle for existence** (iii) Variation and heredity (iv) **survival of the fittest** or natural selection.
4. **Biogenetic law: 'Ontogeny repeats Phylogeny'.** [IPE]
5. **Atavism:** Sudden reappearance of some vestigial organs in a better developed condition [IPE]
6. **Genetic load:** Existence of deleterious genes with in a population is called genetic load. [IPE]
7. **Homologous organs:** The organs which have similar structure and origin but not necessarily the same function are called homologous organs. **Ex:** Flipper of Whale, wings of bat. [IPE]
8. **Analogous organs:** The organs which have different origin but have same function are analogous organs. **Ex:** Wings of butterfly and wings of birds. [IPE]
9. **Mutations:** These are sudden, random inheritable changes that occur in organisms. [IPE]

FRUITY Qs OF IPE

(1 x 2) + (2 x 4) = 10 Marks

1. What are panspermia?
2. Mention the names of any four connecting links that you have studied.
3. Define Biogenetic Law, giving an example.
4. Define atavism with an example.
5. Distinguish between homologous and analogous organs.
6. Write a short note on the theory of mutations.
7. Explain Darwin's theory of Natural Selection with industrial melanism as an experimental proof.
8. Write a short note on Neo - Darwinism.
9. What is meant by genetic drift? Explain genetic drift citing the example of Founder Effect.