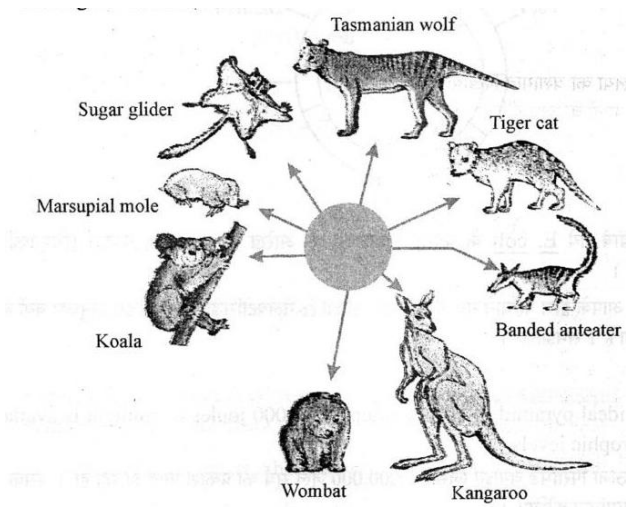




DATE :

TOPIC/SUB-TOPIC : **EVOLUTION**

- 1 State the theory of Special Creation. 1
- 2 What is founder effect? 1
- 3 Who among the Dryopithecus and Ramapithecus was more ape-like? 1
- 4 Define Saltation. 1
- 5 Write the names of the following human ancestors : 1
 - (a) A 15 mya primate that was ape-like
 - (b) A 2 mya primate that lived in East African grasslands
- 6 Name any two vertebrate body parts that are homologous to human forelimbs? 1
- 7 What are the key concepts in the evolution theory of Darwin? 2
- 8 With the help of an algebraic equation, how did Hardy-Weinberg explain that in a given population the frequency of occurrence of alleles of a gene is supposed to remain the same through generations ? 2
- 9 How is Darwin's concept of evolution different from de Vries? 2
- 10  3

- a) Mention the specific geographical region where these organisms are found.
- b) Name and explain the phenomenon that has resulted in the evolution of such diverse species

in the region.

- c) Explain giving reasons the existence of placental wolf and Tasmanian wolf sharing the same habitat.

- 11 Stanley Miller and Harold Urey performed an experiment by recreating in the laboratory the probable conditions of the atmosphere of the primitive earth. (i) What was the aim of the experiment? (ii) In what forms was the energy supplied for chemical reactions to occur? (iii) For how long was the experiment run continuously? Name two products formed. 3
- 12 'Industrial Melanism' in peppered moth is an excellent example of 'Natural selection'. Justify the statement. 3
- 13 (i) In which part of the world, Neanderthal man lived? (ii) What was his brain's capacity? (iii) Mention the advancement which Neanderthal man showed over Homo erectus. 3
- 14 Is evolution a 'process' or the end result of a 'process'? Discuss. 3
- 15 List various evidences of evolution. 5
- 16 State and explain any three factors affecting allele frequency in populations. 5

