

2021

Time : 3 hours

Full Marks : 100

Pass Marks : 45

Candidates are required to give their answers in their own words as far as practicable.

The questions are of equal value.

Answer any five questions in which Q. Nos. 1 and 2 are compulsory.

1. Choose the correct option of the following :
 - (a) Variation is essential for :
 - (i) Isolation
 - (ii) Inheritance
 - (iii) Evolution
 - (iv) Genetic equilibrium
 - (b) Oriental region does not include :
 - (i) Malaya

- (ii) Bali
 - (iii) Formosa
 - (iv) Madagascar
- (c) First ape man is :
- (i) Australopithecus
 - (ii) Homo sapiens
 - (iii) Ramapithecus
 - (iv) Dryopithecus
- (d) Amphibians originated during :
- (i) Silurian period
 - (ii) Devonian period
 - (iii) Permian period
 - (iv) None of the above
- (e) Zebra is found in :
- (i) Ethiopian region
 - (ii) Oriental region
 - (iii) Australian region
 - (iv) Nearctic region

- (f) Inheritance of acquired characters is related to :
- (i) Lamarck
 - (ii) Darwin
 - (iii) De Vries
 - (iv) Wallace
- (g) Earliest horse was :
- (i) Protohippus
 - (ii) Eohippus
 - (iii) Merychippus
 - (iv) Hyracotherium
- (h) The age of mammals is :
- (i) Palaeozoic
 - (ii) Mesozoic
 - (iii) Cenozoic
 - (iv) Azoic
- (i) Which is a living fossil ?
- (i) Amphioxus
 - (ii) Echidna

- (iii) Archaeopteryx
 - (iv) Sea-anemone
- (j) **Homo erectes** is the scientific name of :
- (i) Java ape man
 - (ii) Heidelberg man
 - (iii) Neanderthal man
 - (iv) Cromagnon man
- (k) Whose contributions are important for synthetic theory ?
- (i) Devries
 - (ii) Dobzhansky
 - (iii) Morgan
 - (iv) Muller
- (l) Evolutionary process occurs at the level of :
- (i) Community
 - (ii) Species
 - (iii) Population
 - (iv) Genes

- (m) Mountain ranges are :
- (i) Topographical barrier
 - (ii) Climatic barrier
 - (iii) Vegetative barrier
 - (iv) None of these
- (n) The book "Philosophic Zoologique" was written by :
- (i) Darwin
 - (ii) Lamarck
 - (iii) Wallace
 - (iv) Morgan
- (o) The term "Survival of the fittest" was introduced by :
- (i) Herbert Spencer
 - (ii) Alfred Wallace
 - (iii) Charles Darwin
 - (iv) Julien Huxley
- (p) The golden period of reptiles was :
- (i) Jurassic
 - (ii) Triassic

- (iii) Cretaceous
 - (iv) Permian
- (q) Sphenodon is found only in :
- (i) Australia
 - (ii) New Zealand
 - (iii) North America
 - (iv) South America
- (r) Which is considered as the age of fishes ?
- (i) Ordovician
 - (ii) Silurian
 - (iii) Devonian
 - (iv) Carboniferous
- (s) Which law says that gene frequency remains constant ?
- (i) Mendel's law
 - (ii) Biogenetic law
 - (iii) Herdy-Weinberg law
 - (iv) Darwin's law
- (t) The half-life period of C_{14} (radiocarbon) is :
- (i) 2,865 years

- (ii) 5,730 years
- (iii) 8,595 years
- (iv) 11,460 years

2. Write short notes on any **four** of the following :
- (a) Neo-Lamarckism
 - (b) Palaeozoic era
 - (c) Reproductive isolation
 - (d) Archaeopteryx
 - (e) Polyploidy
 - (f) Merychippus
 - (g) Cro-magnon man
 - (h) Island fauna
3. Give an account of evolutionary history of Horse.
4. Describe the boundaries, climatic conditions and faunistic peculiarities of Ethiopian region.
5. What are the sources of hereditary variations ? Describe their role in Evolution.
6. Describe the climatic conditions and faunistic peculiarities of Mesozoic era.

7. What is Fossil ? Describe the types and mode of formation of fossils.
8. Describe the different factors affecting distribution of animals in space.
9. Write an essay on Darwinism. Mention its drawbacks.
10. Define Isolating mechanism. Describe various Isolating mechanisms and their significance in evolution.

