

## Evolution

Q.1) The factor that leads to founder effect in a population is :

- a) mutation
- b) Genetic drift
- c) Natural selection
- d) Genetic recombination

Ans. b) Genetic recombination

Q.2) Embryological support for evolution was proposed

- a) Ernst Heckel
- b) Karl Ernst von Baer
- c) Charles Darwin
- d) Alfred Wallace

Ans. a) Ernst Heckel

Q.3) The evolution of a species is based upon the sum total of adaptive changes preserved by

- a) Natural selection
- b) isolation
- c) speciation
- d) human conservation

Ans. b) isolation.

Q.4) Genetic drift is on account of

- a) variation
- b) mutation
- c) increase in population
- d) decrease in population

Ans. d) decrease in population.

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Q.5) Balancing selection is concerned with the successful reproduction of

- a) Homozygous recessives.
- b) Homozygous individuals
- c) heterozygous individuals
- d) all of the above

Ans c) heterozygous individuals.

Q.6) A species inhabiting different geographical area is known as

- a) sympatric
- b) allopatric
- c) sibling
- d) biospecies

Ans b) allopatric

Q.7) Quick change in phenotypes in a small band of colonizers is called

- a) Founder effect
- b) Genetic bottleneck
- c) Genetic drift
- d) Gene flow

Ans. a) Founder effect

Q.8) According to Oparin, which one of the following was not present in the primitive atmosphere of the earth

- a) methane
- b) oxygen
- c) Hydrogen
- d) water vapour

Ans b) oxygen

- Q.9) The last common ancestor of human is
- a) Pan troglodytes
  - b) Homo neanderthalensis
  - c) Lemuridea
  - d) Dromaeosaurus

- Q.10) The earliest geological time period among the following is \_\_\_\_\_
- a) Cambrian
  - b) Permian
  - c) Jurassic
  - d) Quaternary

Ans. a) Cambrian

- Q.11) What is the Hardy Weinberg Equation?

- a)  $P^2 + q^2 = 1$
- b)  $P^2 + q^{22} = 1$
- c)  $P^2 + q^2 = 0$
- d)  $P^2 + 2Pq + q^2 = 1$

Ans. d)  $P^2 + 2Pq + q^2 = 1$

- Q.12) P & q of the Hardy Weinberg equation represent \_\_\_\_\_ of a diploid organism.

- a) Frequency of only allele A
- b) Frequency of allele P
- c) Frequency of allele A & a
- d) Frequency of the only allele a

Ans. c) Frequency of allele A & a

Q.13) Which one does not belong to the factors affecting the Hardy Weinberg principle?

- a) Genetic drift
- b) Gene migration
- c) mutation
- d) Genetic drop

Ans. d) Genetic drop

Q.14) Which is not a necessary condition of Hardy-Weinberg Equilibrium?

- a) Large population
- b) Random mating
- c) No mutation
- d) migration of individuals

Ans. d) migration of individuals.

Q.15) What tends to the formation of new phenotype?

- a) pre-existing helpful mutations.
- b) pre-existing disadvantageous mutations
- c) post-existing helpful mutations.
- d) post-existing advantageous mutations.

Ans. c) post-existing helpful mutations.