

HEREDITY & EVOLUTION

EXERCISE # 1

A. Multiple Choice Type Questions

- Q.1** Mendel worked on -
 (A) *Pisum* (B) *Solanum*
 (C) *Lathyrus* (D) *Dolichos*
- Q.2** Father of genetics is -
 (A) Morgan (B) Mendel
 (C) Darwin (D) Hutchinson
- Q.3** A gamete contains -
 (A) Two alleles of a gene
 (B) One allele of a gene
 (C) All alleles of a gene
 (D) None of the above
- Q.4** A breeding experiment dealing with a single trait is called -
 (A) Dihybrid (B) Monohybrid
 (C) Monozygous (D) Heterozygous
- Q.5** Mendel noted as many pairs of contrasting traits in pea plants -
 (A) 2 (B) 5 (C) 7 (D) 9
- Q.6** Which one is not a vestigial organ in man ?
 (A) Vermiform appendix
 (B) Epiglottis
 (C) Muscles of ear pinna
 (D) Nictitating membrane
- Q.7** The wings of bat, locust and pigeon are the example of -
 (A) Homologous organs
 (B) Analogous organs
 (C) Vestigial organs
 (D) Exoskeleton
- Q.8** Homologous structures are -
 (A) Dissimilar in origin, similar in function
 (B) Dissimilar in origin and function both
 (C) Similar in origin and similar in function
 (D) Similar in origin and dissimilar in function
- Q.9** Palaeontology is study of -
 (A) Fossils (B) Bones
 (C) Birds (D) Embryo
- Q.10** 'Descent with modification' is the central theme of -
 (A) Recapitulation (B) Genetics
 (C) Evolution (D) Biogenesis
- Q.11** The book "Origin of Species by Natural Selection" was written by -
 (A) Oparin
 (B) Wallace
 (C) Darwin
 (D) Darwin and Wallace
- Q.12** Sudden inheritable change is called -
 (A) Recombination (B) Mutation
 (C) Natural selection (D) Segregation
- Q.13** The ultimate source of variation is -
 (A) Natural selection
 (B) Mutation
 (C) Sexual reproduction
 (D) None of these
- Q.14** Inheritance of acquired characters was proposed by -
 (A) Darwin (B) Lamarck
 (C) Wallace (D) Oparin
- Q.15** Vestigial organs are -
 (A) Primitive organs
 (B) Preimordial organs
 (C) Organs reduced due to disuse
 (D) Organs marked only in embryonic stage

EXERCISE # 2

A. Very Short Answer Type Questions

- Q.1 Define inherited traits.
- Q.2 Give two examples of inherited traits.
- Q.3 Who is known as father of genetics ?
- Q.4 Name the plant on which Mendel performed his experiments.
- Q.5 How many characters did Mendel study ?
- Q.6 Which is dominant-Round or wrinkled seed shape ?
- Q.7 Define monohybrid cross.
- Q.8 Define dihybrid cross.
- Q.9 What is the literal meaning of the word 'evolution.'
- Q.10 What is organic evolution?
- Q.11 Mention two main causes of variation during reproduction.

Q.12 Define genetic drift..

Q.13 What are acquired characters ?

B. Short Answer Type Questions

Q.14 Distinguish between homologous and analogous organs.

Q.15 Explain the process of fossil formation.

Q.16 What are inherited traits ? Give three examples.

Q.17 Mention any three pairs of contrasting characters on which Mendel performed his experiments.

Q.18 Explain in brief the procedure adopted by Mendel during his experimentation.

Q.19 How is sex of the child determined in human beings ?

Q.20 Explain how do the traits get expressed ?

Q.21 Give two examples to explain that inheritance of acquired characters does not take place.