



ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION



Solutions – 30

Class: XII

Sub: Biological Science

Date: 09.07.2020

Topic: Chapter 7 (Part 8) Genetic Drift and Mutation theory of Evolution by Hugo de Vries

F.M. : 15

Choose the correct option:

(1x15=15)

1. The evolutionary force which acts on a small population to bring about variation is called:
a) Migration b) Genetic Drift c) Natural selection d) All of these

Answer : Genetic Drift (b)

2. The scientist who proposed the concept of Genetic Drift:
a) Hardy b) Dobzhansky c) Sewall Wright d) Gregor

Answer : Sewall Wright (c)

3. The genetic drift has the following important characteristic/ s :
a) Sudden change b) Occurs by chance c) Change in allele frequency d) All of these

Answer : All of these (d)

4. Genetic Drift was proposed by Sewall Wright in the year:
a) 1931 b) 1913 c) 1987 d) 1906

Answer : 1913 (b)

5. A phenomenon causing reduction in the allele frequencies and loss of some alleles from the gene pool in a random manner is called :
a) Bottleneck effect b) gene flow c) gene crash d) all of these

Answer : Bottleneck effect (a)

6. According to Sewall Wright effect the mutations arising in a small population may be:
a) Lost by chance b) Fixed c) added to the original gene pool d) Both (a) and (b)

Answer : Both (a) and (b) (d)

7. The phenomenon of few surviving individuals who are the progenitors for the future generation is called:
a) Population crash b) pioneer c) population initiators d) founders

Answer : Population crash (a)

8. Genetic Drift which occurs due to migration of few individuals to a new area is called:
a) Genetic crash b) Founder's effect c) genetic bottleneck d) bottleneck effect

Answer : Founder's effect (b)

9. The criteria for Founder's effect is :
a) Few founder individuals b) New isolated geographical area c) Natural calamity d) Both (a) and (b)
Answer : Both (a) and (b) (d)
10. Significance of Genetic Drift is/are :
a) Fixation of new mutants b) Reduced variability c) Introduction of non adaptive changes d) All of these
Answer : All of these (d)
11. Mutation Theory of origin of Species was proposed by Hugo De Vries in the year :
a) 1901 b) 1913 c) 1907 d) 1906
Answer : 1901 (a)
12. The sudden distinct heritable changes are called:
a) Variations b) Mutations c) Dissimilarities d) none of these
Answer : Mutation (b)
13. The term 'mutation' was called By Bateson because they were discontinuous in nature:
a) Sports b) Saltations c) Variations d) All of these
Answer : Saltations (b)
14. Hugo De Vries studied the concept of Mutation in :
a) Sweet pea b) Garden pea c) Garden lily d) Evening Primrose
Answer : Evening Primrose (d)
15. The following was the limitation of Mutation Theory
a) Unable to explain Mimicry b) Could not explain the usefulness of Mutant character c) Unable to explain the phenomenon of Coevolution d) All of these
Answer : All of these (d)

