



ST. LAWRENCE HIGH SCHOOL



A JESUIT CHRISTIAN MINORITY INSTITUTION

WORK SHEET – 16

Class: XII

Sub: Biological Science

Date: 18.06.2020

Topic: Chapter 5 (part 5) Non-Mendelism (Part C) – Linkage Chromosomal mapping and Crossing over

F.M. : 15

Choose the correct option:

(1x15=15)

- Who coined the term linkage ?
a) Sutton and Boveri b) T.H. Morgan c) H. Sturtevant d) None of these
- The phenomenon where two or more genes are inherited en bloc generation after generation is called :-
a) Pleiotrophy b) Incomplete dominance c) Linkage d) Cross over
- The genes present in the same chromosome are often referred to as :-
a) Linked Genes b) Multiple genes c) Linkage group d) Both linkage group and linked genes
- The number linkage group is equal to the number of _____.
a) Chromosomes in haploid cells b) Chromosomes in a diploid cell c) Chromatids in haploid cell d) None of these
- The phenomenon where 0 % recombination occurs is :-
a) Crossing over b) Complete linkage c) Incomplete linkage d) Linkage
- In a cross between blue flowers and long pollens male and red flower round pollen recessive female the phenomenon of incomplete exhibited. The ratio of test cross progeny in F_2 is :-
a) 7:1:1:7 b) 1:1:1:1 c) 2:1:2:3 d) 1:2:3:4
- Significance of linkage is :-
a) Variety of gametes are produced b) Reduced variation in progeny c) Intermediate Phenotype d) All of these
- Mutual exchange of _____ between a pair of homologous chromosome is called crossing over.
a) Non-sister chromatid b) Sister chromatid c) Chromonema d) All of these
- The point of contact where homologues are held together for exchange during crossing over is called :-
a) Synapsis b) Bivalence c) Chiasmata d) Pairing
- The following is a type of crossing over :-
a) Single crossing over b) Double crossing over c) Multiple crossing over d) All of these

11. In double crossing over the numbers of chiasmata observed is :-
a) Two b) One c) Three d) many
12. Chromosomal mapping represents :-
a) Address of the gene in a cell b) Relative number of genes c) Relative position of genes in a chromosome d) All of these
13. The distance between two genes is measured in :-
a) Map units b) Centimetre c) Centi Morgan d) Both map unit and centi morgan
14. Mathematically 1 map unit is equal to _____ recombination percent.
a) 1% b) 2% c) 4% d) 5%
15. Significance of chromosome mapping :-
a) Give number of Chromosomes b) Numbers of linkage groups c) Exact sequence of genes on a chromosome d) All of these

Shaista Ahmed