



# ST. LAWRENCE HIGH SCHOOL



A JESUIT CHRISTIAN MINORITY INSTITUTION

## SOLUTIONS – 21

Class: XII

Sub: Biological Science

Date: 24.06.2020

Topic: Chapter 5 (Part 10) Mutation and chromosomal disorders

F.M. : 15

Choose the correct option:

(1x15=15)

1. Loss or gain of one or more chromosomes in a genome includes :-

a) Hypoploidy b) Hyperploidy c) Euploidy d) Both (a) and (b)

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

2. The addition of one chromosome to the genome is called :-

a) Nullisomy b) Trisomy c) Monosomy d) All of these

**Answer : Trisomy (b)**

3. The chromosome number in case of monosomy is represented as :-

a)  $2n+1$  b)  $2n+2$  c)  $2n-1$  d)  $2n-2$

**Answer :  $2n-1$  (c)**

4. Down syndrome occurs due to the following type of mutation :-

a) Monosomy b) Trisomy c) Tetrasomy d) Nullisomy

**Answer : Trisomy (b)**

5. Trisomy takes place in the chromosome number \_\_\_\_\_ in Down's syndrome.

a) 21 b) 19 c) 17 d) 15

**Answer : 21 (a)**

6. The characteristic feature of a child suffering with Down's Syndrome includes :-

a) Epicanthic folds b) Protruding tongue c) Mental retardation d) All of these

**Answer : All of these (d)**

7. The following is not an example of disease related to sex chromosome :-

a) Klinefelter syndrome b) Turner's syndrome c) Haemophilia d) Down's Syndrome

**Answer : Down's Syndrome (d)**

8. The genotype of the person suffering with Turner Syndrome is :-

a)  $44+XY$  b)  $44+XX$  c)  $44+XO$  d)  $44+XXX$

**Answer :  $44+XO$  (c)**

9. A female suffering with Turner syndrome has the following characteristic :-

a) Streaked gonads b) Webbed neck c) Underdeveloped Breast and uterus d) All of these

**Answer : All of these (d)**

10. Turner syndrome is caused due to :-

- a) Nullisomy b) Monosomy c) Trisomy d) Tetrasomy

**Answer : Monosomy (b)**

11. Turner syndrome and Klinefelter syndrome is due to :-

- a) Non-dysjunction of X-chromosome b) Zero crossing over c) Failure of cytokinesis  
d) All of these

**Answer : Non-dysjunction of X-chromosome (a)**

12. Klinefelter syndrome males have the following genotype :-

- a) 44+XO b) 44+XY c) 44+XXY d) None of these

**Answer : 44+XXY (c)**

13. The total number of chromosomes in a person suffering with Klinefelter syndrome is :-

- a) 45 b) 47 c) 46 d) 44

**Answer : 47 (b)**

14. The following is not a feature of Klinefelter syndrome male :-

- a) Mongoloid features b) Sparse Body hair c) Sterility d) Breast development

**Answer : Mongoloid features (a)**

15. The following is an example of autosomal disorder :-

- a) Turner syndrome b) Down Syndrome c) Klinefelter syndrome d) All of these

**Answer : Down syndrome (b)**

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