

# DPP

DAILY PRACTICE PROBLEMS

Class : XII<sup>th</sup>


Date :

Subject : BIOLOGY


DPP No. : 9

## Topic :- Principles Of Inheritance & Variation


- The loss of chromosomal segment is due to
  - Polyploidy
  - Deletions
  - Duplications
  - Inversions
- Symbol  $A$ ,  $B$  and  $C$  indicates
 



$A$



$B$



$C$

  - Carrier female
  - Effected female
  - Death of female
  - Normal female
- The chromosomal condition in Turner's syndrome is
  - 21 trisomy with XY
  - 44 autosomes + XXY
  - 44 autosomes + XYY
  - 18 trisomy with XY
- If a child is of O blood group and his father is of B blood group, the genotype of father is
  - $I^O I^O$
  - $I^A I^B$
  - $I^O I^B$
  - $I^O I^A$
- Work of Beadle and Tatum on *Neurospora crassa* proved that
  - Complementary genes
  - Blending inheritance
  - Multiple alleles
  - Pseudoalleles
- The  $F_2$ -generation offspring in a plant showing incomplete dominance, exhibit
  - Variable genotypic and phenotypic ratio
  - a genotypic ratio of 1 : 1
  - a phenotypic ratio of 3 : 1
  - Similar genotypic and phenotypic ratio of 1 : 2 : 1
- Cytoplasmic inheritance always shows
  - Paternal characters
  - Maternal characters
  - Parental characters
  - Little paternal and more maternal characters
- Type of gamete participating in selfing of members in monohybrid cross are of
  - One type
  - Two type
  - Four type
  - Many type
- In sickle-cell anaemia, GAG is replaced by
  - GGA
  - GUG
  - AAG
  - GGG

10. Genes, when close together on a chromosome, are known as  
a) Linkage                      b) Mutation                      c) Translation                      d) Transcription
11. If a character is always transmitted directly from a father to all his sons and from their sons to all their sons, then which chromosome carries the gene for the character?  
a) Autosome                      b) X-chromosome                      c) Y-chromosome                      d) None of these
12. Hugo de Vries is famous for  
a) Natural selection theory                      b) Mutation theory  
c) Organic theory                      d) Chemical theory
13. Jumping genes in maize were discovered by  
a) Hugo de Vries                      b) Barbara McClintock                      c) T H Morgan                      d) Mendel
14. A plant of  $F_1$ - generation has genotype 'AABbCC'. On selfing of this plant, the phenotypic ratio in  $F_2$ - generation will be  
a) 3 : 1                      b) 1 : 1  
c) 9 : 3 : 3 : 1                      d) 27 : 9 : 9 : 9 : 3 : 3 : 3 : 1
15. The character that is expressed in the  $F_1$ -generation is called the  
a) Recessive character                      b) Dominant character  
c) Codominant character                      d) None of these
16. Chromosomal theory of inheritance was proposed by  
a) Gregor Mendel                      b) Hugo de Vries                      c) Bridges                      d) Sutton and Boveri
17. In sex linkage, the speciality is  
a) Atavism                      b) Criss-cross inheritance  
c) Reversion                      d) Gene flow
18. Mother = A blood group  
Father = AB blood group  
The child will not have  
a) A blood group                      b) O blood group                      c) B blood group                      d) A blood group
19. The chromosome constitution  $2n-2$  of an organism represents  
a) Monosomic                      b) Nullisomic                      c) Haploid                      d) Trisomic
20. Phenylalanine does not changed to tyrosine. This condition is seen in  
a) Sickle-cell anaemia                      b) Phenylketonuria  
c) Thalassaemia                      d) Haemophilia