

DPP

DAILY PRACTICE PROBLEMS

Class : XIIth

Date :

Subject : BIOLOGY

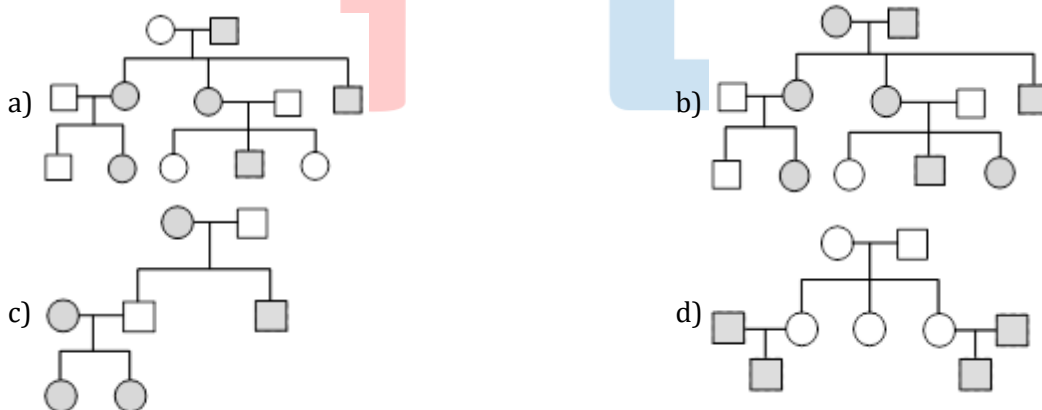
DPP No. : 4

Topic :- Principles Of Inheritance & Variation

1. Genetics is the branch of biology which deals with
 - a) Variation
 - b) Inheritance
 - c) Both (a) and (b)
 - d) Study of characters
2. Giant chromosomes are found inside
 - a) nucleus of man
 - b) oocytes of frog
 - c) salivary glands of silk moth
 - d) salivary glands of *Drosophila*
3. Who is known as father of physiological genetics or father of biochemical genetics?
 - a) Slatyer
 - b) Charles Elton
 - c) Taylor
 - d) Archibald Garrod
4. The graphical representation to calculate the probability of all possible genotypes of offspring in a genetic cross, is called
 - a) Pedigree analysis
 - b) Karyotype
 - c) Punnett square
 - d) Chromosome map
5. Rh factor can produce disease
 - a) AIDS
 - b) Turner's syndrome
 - c) Erythroblastosis foetalis
 - d) Sickle-cell anaemia
6. To determine heterozygosity of a cross, one has to perform
 - a) Back cross
 - b) Reciprocal cross
 - c) Test cross
 - d) Any of these
7. Which of the following type of mutation involves the reverse order of genes in a chromosome?
 - a) Deletion
 - b) Duplication
 - c) Inversion
 - d) Reciprocal translocation
8. The chromosomal number in the meiocytes of housefly is
 - a) 8
 - b) 12
 - c) 21
 - d) 23
9. The alternate forms of a gene is called
 - a) Recessive character
 - b) Dominant character
 - c) Alleles
 - d) Alternative gene
10. Haemophilia is related to
 - a) Albinism
 - b) Sickle-cell anaemia
 - c) Colour blindness
 - d) thalassemia

11. Identify a Mendelian disorder from the following.
 a) Down's syndrome
 b) Turner's syndrome
 c) Phenylketonuria
 d) Klinefelter's syndrome
12. When a tall plant with round seeds (TTRR) crossed with a dwarf plant with wrinkled seeds (ttrr), the F_1 -generation consists of tall plants with round seeds. What would be the proportion of dwarf plant with wrinkled seeds in F_1 -generation?
 a) $\frac{1}{4}$
 b) $\frac{1}{16}$
 c) 0
 d) $\frac{1}{2}$
13. The term 'Genetics' was proposed by
 a) Mendel
 b) Bateson
 c) Motgan
 d) Johanssen
14. Sex chromosomes are also known as
 a) Autosomes
 b) Allosomes
 c) Genome
 d) karyotype
15. Mendel obtained recessive character in F_2 by ...A... the ...B... plants. Here A and B refers to
 a) A-self-pollinating; B- F_1
 b) A-self-pollinating; B- F_2
 c) A-cross-pollinating; B- F_1
 d) A-cross-pollinating; B- F_2

16. In a family father had a trait but mother did not. All their sons and daughter had this trait. The same trait was found in some grand daughters, through daughter were married to the normal persons. Choose the correct pedigree chart for the condition



17. If genes of an allelic pair are not-same. This condition is called
 a) Homozygous
 b) Heterozygous
 c) Diallelic
 d) Polyallelic
18. Which type of pollination method was adopted by Mendel in his experiment?
 a) Artificial
 b) Cross pollination
 c) Natural
 d) Both (a) and (b)
19. Select the correct statement from the ones given below with respect to dihybrid cross.
 a) Tightly linked genes on the same chromosome
 b) Genes far apart on the same chromosome show

- show higher recombinations very few recombinations
c) Genes loosely linked on the same chromosome Tightly linked genes on the same chromosome
show similar recombinations as the tightly linked ones d) show very few recombinations

20. Grain colour in wheat is determined by three pairs of polygene. Following the cross AABBCc(dark colour) \times aabbcc(light colour) , in F_2 generation. What proportion of the progeny is likely to resemble either parent?
a) Half b) Less than 5 per cent c) One -third d) None of these

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