

DPP

DAILY PRACTICE PROBLEMS

Class : XIIth

Date :

Subject : BIOLOGY

DPP No. : 10

Topic :- Principles Of Inheritance & Variation

1. A haemophilic woman marries a normal man, then
 - a) All the children will be normal
 - b) All the sons will be haemophilic
 - c) All the girls will be haemophilic
 - d) Half girls will be haemophilic

2. Disorder inherited as Mendel's law of inheritance called
 - a) Mendelian disorder
 - b) Chromosomal disorder
 - c) Maternal inheritance
 - d) Polygenic inheritance

3. The term 'gene' was coined by
 - a) Avery
 - b) Bateson
 - c) Johanssen
 - d) Mendel

4. The phenotypic ratio in the F_2 generation of dihybrid cross, is
 - a) 9 : 3 : 3 : 1
 - b) 1 : 2 : 2 : 4 : 1 : 2 : 1 : 2 : 1
 - c) 7 : 1 : 1 : 7
 - d) 12 : 8 : 4

5. Chromosome is made up of
 - a) DNA + pectin
 - b) RNA + DNA
 - c) DNA + histone
 - d) Only histone

6. Select the incorrect statement from the following.
 - a) Linkage is an exception to the principle of independent assortment in heredity
 - b) Galactosemia is an inborn error of metabolism
 - c) Small population size result in random genetic drift in a population
 - d) Baldness is a sex-limited trait

7. A pure tall and a pure dwarf plant were crossed to produced offsprings. Offsprings were self crossed, then find out the ratio between true breeding tall to true breeding dwarf?
 - a) 1 : 1
 - b) 3 : 1
 - c) 2 : 1
 - d) 1 : 2 : 1

8. Exposure of X-rays enhances the frequency of
 - a) Linkage
 - b) Crossing over
 - c) Pairing of chromosome
 - d) Segregation

9. A self-fertilizing trihybrid plant forms

- a) 8 different gametes and 64 different zygotes b) 4 different gametes and 16 different zygotes
c) 8 different gametes and 16 different zygotes d) 8 different gametes and 32 different zygotes
10. Genotype is the
a) Genetic constitution b) Genetic constitution of the phenotype
c) Trait expressed d) Expressed genes
11. Failure of cytokinesis after ...A... stage of cell division results in an increase in a whole set of chromosomes in an organism called ...B...
a) A-prophase, B-polyploidy b) A-metaphase, B-polyploidy
c) A-anaphase, B-polyploidy d) A-telophase, B-polyploidy
12. In previous question find out total seeds (plants) having round seed texture
a) 12 b) 10 c) 9 d) 11
13. The ratio 1 : 1 : 1 : 1 is obtained from a cross between the parents
a) RRYy × rryy b) RRYy × rryy c) RRYy × Rryy d) RrYy × rryy
14. Which of the following terms represent a pair of contrasting characters?
a) Homozygous b) Heterozygous c) Allelomorphs d) Codominant genes
15. Harmful mutation does not get eliminated from the gene pool because they are mainly
a) Dominant, which have beneficial effect on population and carried by heterozygous individuals
b) Dominant, which have beneficial effect on population and carried by homozygous individuals
c) Carried from one generation to another generation through autosomal chromosomes
d) They show genetic drift
16. Incomplete linkage is ...A... Complete linkage is ...B... Choose correct option for A and B
a) A-common, B-rare b) A-rare, B-common
c) A-impracticle, B-practicle d) A-practicle, B-impracticle
17. Mendelism was rediscovered by
I. Morgan
II. De Vries
III. Correns
IV. Tschermark
Choose the correct option
a) I, III and IV b) I, II, III and IV c) II, III and IV d) I, II and III
18. In gynandromorphs,
a) Some cells of body contain XX and some cells with genotype XY
b) All cells have XX genotype

- c) All cells have XY genotype
 - d) All cells with genotype XXY
19. Example of interagenic gene interaction is/are
- a) Incomplete dominance
 - b) Codominant
 - c) Multiple alleles
 - d) All of the above
20. If a cross between two individuals produces offspring with 50% dominant character (A) and 50% recessive character (a), then the genotypes of parents are
- a) Sex linked genes
 - b) Pseudoallelic genes
 - c) Intermediate inheritance
 - d) Dominant and recessive genes

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