

DPP

DAILY PRACTICE PROBLEMS

Class : XIIth

Date :

Subject : BIOLOGY

DPP No. : 6

Topic :- Principles Of Inheritance & Variation

1. XO type of sex determination is seen in
 - a) Man
 - b) Grasshopper
 - c) *Drosophila*
 - d) Birds

2. TtRr represents (heterozygous tall, heterozygous pink). If this plant is self crossed then (T-dominant, t-recessive, R-dominant, r-recessive)
 - I. 25% plant have red flower
 - II. 25% plant have white flower
 - III. 50% plant have pink flower
 - IV. 50% plant are tall
 Choose the correct option
 - a) I and II
 - b) I, II and III
 - c) II, III and IV
 - d) I, II, III and IV

3. Chimera is produced due to
 - a) Somatic mutations
 - b) Reverse mutations
 - c) Lethal mutations
 - d) Pleiotropic mutations

4. How many pairs of true breeding varieties were selected by Mendel for his experiment on pea plant
 - a) 12
 - b) 13
 - c) 7
 - d) 15

5. Syndrome stands for
 - a) A group of symptoms
 - b) Viral disease
 - c) Diseased condition
 - d) Dwarf organism

6. Parents with blood group-A and AB will not produce offspring with blood group
 - a) A
 - b) AB
 - c) B
 - d) O

7. The genetic deficiency of ADH-receptor leads to
 - a) Diabetes mellitus
 - b) Glycosuria
 - c) Diabetes insipidus
 - d) Nephrogenic diabetes

8. Which of the following observation made Mendel in refutation of the blending theory of inheritance?
 - a) Red plant crossed with white-the resulting progeny was pink
 - b) Features of offspring are not intermediate
 - c) Gametes carrying different type of alleles could not fuse successfully

- d) After meiosis, two copies of given gene end up in the same gamete
9. Mutations are generally
a) Recessive b) Polymorphic c) Lethal d) Dominant
10. The 'Cri-du-chat' syndrome is caused by the change in chromosome structure involving
a) Deletion b) Duplication c) Inversion d) Translocation
11. Pedigree analysis indicated that Mendel's principal are also applicable to ...A... genetics with some modifications find out like ...B... inheritance, sex linked inheritance and others.
Choose the correct option for A and B
a) A-animal; B-quantitative b) A-human; B-qualitative
c) A-human; B-quantitative d) A-animal; B-qualitative
12. Which one of the following traits of garden pea studied by Mendel was a recessive feature?
a) Green pod colour b) Round seed colour c) Axial flower position d) Green seed colour
13. Genes for cytoplasmic male sterility in plants are generally located in
a) Mitochondrial genome b) Cytosol
c) Chloroplast genome d) Nuclear genome
14. A distinct mechanism that usually involves a short segment of DNA with remarkable capacity to move from one location in a chromosome to another is called
a) DNA replication b) DNA hybridization c) DNA recombination d) DNA transposition
15. When F_1 -generation progeny resembles both the parents this is called
a) Condominance b) Incomplete dominance
c) Both (a) and (b) d) Complete dominance
16. The individual from which a pedigree analysis initiated is called
a) Probend b) Propositus c) Both (a) and (b) d) Origin
17. Plant which used by Hugo de Vries for mutation experiment was
a) *Oenothera lamarckiana* b) *Solanum tuberosum*
c) *Ficus elastica* d) None of the above
18. A person is suffering from disease phenylketonuria, which is an autosomal recessive disease. Which of these is lacking in the person?
a) Homogentisic acid b) Phenylalanine hydroxylase
c) Caeruloplasmin d) Cystine
19. Haemophilia in man is due to
a) Sex-linked inheritance b) Sex-limited inheritance

- c) Sex-influenced inheritance
- d) Primary non-disjunction
20. When a dihybrid cross is fit into a Punnett square with 16 boxes, the maximum number of different phenotypes available, are
- a) 8 b) 4 c) 2 d) 16

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