



TARGET : NEET (UG) 2024

Course : SARANSH (Youtube Live CRASH COURSE)

BIOLOGY

DPP

DAILY PRACTICE PROBLEMS

DPP NO. 1

BOTANY : PRINCIPLE OF INHERITANCE AND VARIATIONS

DPP No. : 1

- Which Mendelian idea is depicted by a cross in which the F_1 generation resembles both the parents
 - (1) law of dominance
 - (2) inheritance of one gene
 - (3) co - dominance
 - (4) incomplete dominance
- Alleles are :
 - (1) true breeding homozygotes
 - (2) different molecular forms of a gene
 - (3) heterozygotes
 - (4) different phenotype
- In his classic experiments on pea plants, Mendel did not use
 - (1) Pod length
 - (2) Seed shape
 - (3) Flower position
 - (4) Seed colour
- In a testcross involving F_1 dihybrid flies, more parental-type offspring were produced than the recombinant-type offspring. This indicates:
 - (1) Both of the characters are controlled by more than one gene.
 - (2) The two genes are located on two different chromosomes.
 - (3) Chromosomes failed to separate during meiosis.
 - (4) The two genes are linked and present on the same chromosome.
- Which one from those given below is the periods for Mendel's hybridization experiments?
 - (1) 1856 - 1863
 - (2) 1840 - 1850
 - (3) 1857 - 1869
 - (4) 1870 - 1877
- The genotypes of a Husband and Wife are $I^A I^B$ and $I^A i$
Among the blood types of their children how many different genotypes and phenotypes are possible
 - (1) 3 genotypes ; 3 phenotypes
 - (2) 3 genotypes; 4 phenotypes
 - (3) 4 genotypes ; 3 Phenotypes
 - (4) 4 genotypes ; 4 phenotypes



7. Which of the following characteristics represent 'Inheritance of blood groups' in humans?
- a. Dominance
b. Co-dominance
c. Multiple allele
d. Incomplete dominance
e. Polygenic inheritance
- (1) b, c and e
(2) a, c and e
(3) b, d and e
(4) a, b and c
8. In *Antirrhinum* (Snapdragon), a red flower was crossed with a white flower and in F_1 generation pink flowers were obtained. When pink flower were selfed, the F_2 generation showed white, red and pink flowers. Choose the incorrect statements from the following :
- (1) Law of Segregation does not apply in this experiment.
(2) This experiment does not follow the Principle of Dominance.
(3) Pink colour in F_1 is due to incomplete dominance.
(4) Ratio of F_2 is - $\frac{1}{4}$ (Red) : $\frac{2}{4}$ (Pink) : $\frac{1}{4}$ (White)
9. How many true breeding pea plant varieties Mendel select as pairs, which were similar except for one character with contrasting traits ?
- (1) 2
(2) 14
(3) 8
(4) 4
10. The production of gametes by the parents, formation of zygotes, the F_1 and F_2 plants, can be understood from a diagram called:
- (1) Punnett square
(2) Punnett square
(3) Net square
(4) Bullet square