

Topic: Principles of Inheritance and Variations (chapter 5)

Based on your understanding of the E-lecture-cum-PPT's, video links and other e-resources shared with you, answer the following questions.

- Q1. Mention the advantages of selecting pea plant for experiment by Mendel. (2)
- Q2. A diploid organism is heterozygous for 4 loci, how many types of gametes can be produced? (2)
- Q3. Explain the Law of Dominance using a monohybrid cross. (3)
- Q4. Define and design a test cross. (3)
- Q5. When a cross is made between tall plants with yellow seeds (TtYy) and tall plant with green seed (Tt yy), what proportions of phenotype in the offspring could be expected to be: 1). Tall and green and 2). Dwarf and green. (3)
- Q6. A cross between two tall plants resulted in offspring having few dwarf plants. (3)
What would be the genotypes of both the parents?
- Q7. Enlist the steps of controlled cross pollination. Would emasculation be needed in a cucurbit plant? Give reasons for your answer. (3)
- Q8. In a monohybrid cross of plants with red and white flowered plants, Mendel got only red flowered plants. On self-pollinating these F₁ plants got both red and white flowered plants in 3:1 ratio. Explain the basis of using RR and rr symbols to represent the genotype of plants of parental generation. (3)

You tube links:

1. [#cbsebiology](#) [#ExamFearBiology](#) [#Class12Biology](#)
2. [#extraclass](#) [#theextraclass](#) [#extraclassapp](#)

Note:

1. **Due date of submission: 20th August, 2021.**
2. **Send your answers through email(balbirbali02@gmail.com; gurmeetabhi15@gmail.com)**
3. **Students must mention their name, class/section and date in their assignments.**
4. **Your assignments will be marked for Internal /Term assessments. Therefore, it is necessary for you to submit it on time.**