

**Date:**

**Reg. No:**

**ST. JOSEPH’S COLLEGE (AUTONOMOUS), BENGALURU-27**

**B.Sc. Botany: VI Semester**

**Semester Examination: April 2022**

**(Examination conducted in July 2022)**

**BO 6218: Cytology, Genetics, Plant breeding & Propagation**

**Time- 2 ½ hrs** **Max Marks-70**

**Part A : Define or Explain ANY TEN of the following 10 x 2 = 20**

1. Euchromatin
2. FISH
3. Trisomy 21
4. Colchicine
5. Test cross
6. Epigenetics
7. Pleiotropy
8. Linkage
9. Polymeric genes
10. T.S. Venkataraman
11. Heterosis
12. Inter-specific hybridization

**Part B : Write critical notes on ANY FIVE of the following 5 x 6 = 30**

1. Write a short note on the structural aberrations in chromosomes
2. Explain the structure of Polytene Chromosome
3. Tabulate the dominant and recessive traits of *Pisum sativum* selected by Mendel
4. Explain incomplete dominance using dihybrid cross with any one plant example
5. Give an account on Chloroplast inheritance in plants
6. Explain Mass Selection technique for crop improvement
7. Describe dominant Epistasis with suitable example

**Part C : Give a comprehensive account of ANY TWO of the following 10 x 2 = 20**

1. Explain the different stages of Meiosis-I with labelled diagrams
2. Give an account on Lethal gene and Complementary gene interactions
3. Describe any five grafting methods used in plant propagation with labelled diagrams