B.Sc DEGREE EXAMINATION,APRIL 2019
III Year V Semester
Genetics and Plant Breeding

Time : 3 Hours **Max.marks :75**

Section A $(10 \times 2 = 20)$ Marks

Answer any **TEN** questions

1. Gene interaction
2. Polygenic inheritance
3. Colour blindness
4. Plasmid DNA
5. Chromosome Mapping
6. Aneuploidy
7. Germplasm storage
8. Gene therapy
9. Herterosis
10. Transposons
11. Male sterility
12. Haemophilia

Section B $(5 \times 5 = 25)$ Marks

Answer any **FIVE** questions

13. Explain the dihybrid cross.
14. Comment on cytoplasmic inheritance.
15. Write notes on mutagenic agents and its significance.
16. What is genomic library?
17. Comment on pure line selection.
18. Comment on pseudo-alleles.
19. What is the role of polyploidy in plant breeding?

Section C $(3 \times 10 = 30)$ Marks

Answer any **THREE** questions

20. Differentiate between test cross and back cross.
21. Write a detailed account on sex determination in plants.
22. Comment on Klinefelter's syndrome and Down's syndrome.
23. Explain the linkage and crossing over.
24. Comment on the mass selection and pure line selection.

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