M.Sc. DEGREE EXAMINATION,NOVEMBER 2019
II Year III Semester
Genetics, Plant Breeding and Evolution

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

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

Answer any **TEN** questions

1. Linked genes
2. Law of segregation.
3. Cistron
4. Stop codon
5. *Drosophila*
6. Alleles
7. Inbreeding
8. Heterosis
9. Origin of cell.
10. Adaptive radiation.
11. Incomplete dominance.
12. Pedigree method

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

Answer any **FIVE** questions

13. Illustrate and explain gene mapping.
14. Briefly explain the Britten and Davidson model of gene regulation.
15. Write about the chromosomal aberrations due to morphology.
16. Give the comparison between the mass selection and pure-line selection.
17. Give a brief account on Lamarckism.
18. Briefly explain the Mendel's law of independent assortment with suitable example.
19. Write about the role of polyploidy in plant breeding and mention its significance.

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

Answer any **THREE** questions

20. Give an account on sex determination in plants.
21. What is gene regulation? Explain it with the help of lac-operon.
22. What is mutation? Explain the types of mutagens.
23. Give an account of different methods of crop improvement used in Paddy and Cotton.
24. Explain Darwinism and Neo-Darwinism .

M.Sc. DEGREE EXAMINATION,NOVEMBER 2019
II Year III Semester
Genetics, Plant Breeding and Evolution

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

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

Answer any **TEN** questions

1. Linked genes
2. Law of segregation.
3. Cistron
4. Stop codon
5. *Drosophila*
6. Alleles
7. Inbreeding
8. Heterosis
9. Origin of cell.
10. Adaptive radiation.
11. Incomplete dominance.
12. Pedigree method

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

Answer any **FIVE** questions

13. Illustrate and explain gene mapping.
14. Briefly explain the Britten and Davidson model of gene regulation.
15. Write about the chromosomal aberrations due to morphology.
16. Give the comparison between the mass selection and pure-line selection.
17. Give a brief account on Lamarckism.
18. Briefly explain the Mendel's law of independent assortment with suitable example.
19. Write about the role of polyploidy in plant breeding and mention its significance.

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

Answer any **THREE** questions

20. Give an account on sex determination in plants.
21. What is gene regulation? Explain it with the help of lac-operon.
22. What is mutation? Explain the types of mutagens.
23. Give an account of different methods of crop improvement used in Paddy and Cotton.
24. Explain Darwinism and Neo-Darwinism .