

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI –600 086
(For candidates admitted during the academic year 2011– 12 & thereafter)
SUBJECT CODE: 11 BY/PI/GB24

M. Sc. DEGREE EXAMINATION, NOVEMBER 2014

COURSE : INDEPENDENT ELECTIVE
PAPER : GENETICS AND PLANT BREEDING
TIME : 3 HOURS

MAX. MARKS: 100

SECTION – A

ANSWER ALL THE QUESTIONS

(20 x 1 = 20)

1. Genotype
2. Crossing over
3. Non-Mendelian inheritance
4. Multiple alleles
5. Translocation
6. Nullisomy
7. Mutagen
8. Rec A
9. Linkage map
10. Allopolyploidy
11. F pili
12. Generalized transduction
13. SSR marker
14. NIL population
15. Plant Breeders Rights
16. QTL
17. Oligogene
18. Codominance
19. Genotype x Environment interaction
20. Gene pyramiding

SECTION – B

ANSWER ANY FOUR QUESTIONS IN ABOUT 600 WORDS

(4 x 10 = 40)

21. Explain Mendel's laws and experiments.
22. Write short notes on bacterial transduction.
23. Briefly explain different types of gene interaction.
24. Write an account on software in QTL mapping.
25. Explain application of molecular markers in plant breeding.
26. Give an account on quantitative inheritance.

SECTION – C

ANSWER ANY TWO QUESTIONS IN ABOUT 1500 WORDS

(2 x 20 = 40)

27. Write a detailed note on multiple alleles with an example.
28. Describe the different types of chromosomal aberrations.
29. Explain the construction of genetic map using several molecular markers.
30. Write an account on polyploidy and its application.
