SECOND SEMESTER M.Sc. DEGREE EXAMINATION, MAY 2018
(Regular/Supplementary/Improvement)
(CUCSS - PG)
CC 15P BO2 C06 - CYTOGENETICS, GENETICS, BIOSTATISTICS, PLANT BREEDING AND EVOLUTION
(Botany)
(2015 Admission onwards)

Time: Three Hours   Maximum: 36 Weightage

I. Answer *all* questions briefly:

   1. What are B-chromosomes?

   2. LOD score analysis.

   3. What is interference?

   4. Write short note on flow cytometry .

   5. Z test.

   6. Lamp brush chromosomes.

   7. RBD

   8. Theorems of probability.

   9. What is quartile deviation?

   10. What is segmental allopolyploidy ?

   11. Pureline selection.

   12. Primordial soup hypothesis.

   13. Genetic drift.

   14. Plant introduction agencies in India.

(14 x 1 = 14 Weightage)

II. Answer any *seven* questions each in not more than 100 words:

   15. What is Farmers Right Act?

   16. What is Robertsonian translocation?

   17. Explain Ac, Ds and Mu elements in maize.

   18. Explain Hardy-Weinberg principle.

   19. What is QTL mapping?

   20. What is chi-square test? What are the applications?

   21. Write a note on statistical softwares.

   22. What is coefficient of correlation?

23. Highlight the use of molecular markers in plant breeding.

24. Write a note on geological time scale.

(7 x 2 = 14 Weightage)

III. Answer any *two* questions in 300 words:

25. Write an essay on probability distributions.

26. What are the different structural chromosomal aberrations and how are they significant in evolution?

27. What is resistance breeding? Explain achievements of resistance breeding.

28. Explain genetic recombination and mapping of genes in bacteria.

(2 x 4 = 8 Weightage)

****