C 63022 **(Pages : 2)** **Name.....**

Reg. No.....

SECOND SEMESTER M.Sc. DEGREE EXAMINATION, JUNE 2019

(CUCSS)

Botany

BOO2CT06—CYTOGENETICS, GENETICS, BIOSTATISTICS, PLANT BREEDING AND EVOLUTION

(2010 Admissions)

Time : Three Hours Maximum : 36 Weightage

I. Answer the questions very briefly (14 x 1 = 14 weightage ; grades A, B, C, D, E) :

1 What is meant by Robertsonian translocation ?

2 Write notes on Chi-square test.

3 Define Hardy Weinberg law.

4 Comment on Karyotype.

5 Write an account on *In situ* hybridization.

6 Give the importance of Lod score analysis.

7 State the features of Ac Ds system.

8 What is meant by Type I and Type II errors ?

9 Give an account on Plant introduction,

10 Comment on quality breeding.

11 Write notes on modern synthetic theory of evolution.

12 What is cryopreservation ?

13 Give the features of CRD.

14 What is interference ? How this can be calculated ?

II. Answer any *seven* questions in not more than 100 words (7 x 2 = 14 weightage ; grades A, B, C, D, E)

15 Give the principle and application of flow cytometry.

16 Mention the basic principles of the design of experiment.

17 Give the features of cytoplasmic male sterility.

18 Comment on statistical softwares.

19 What are the different measures of central tendency ?

20 Write notes on polygenic inheritance.

21 Give the basic features of transformation mapping in bacterium.

22 Write notes on the different theorems of probability.

23 Write in detail about sampling techniques.

24 Give an account on different theories of evolution.'

III. Answer any *two* questions in 300 words each (2 x 4 = 8 weightage ; A, B, C, D, E) :

95 Write an account of structural chromosome aberrations and their significance in evolution.

26 Describe the different types of transposable elements.

27 Write an account of different measures of dispersion studies by you.

28 Give an account of resistance breeding.