ST MARY'S COLLEGE (AUTONOMOUS), THRISSUR-20

II SEMESTER (CBCSS-PG) DEGREE EXAMINATION, MARCH 2025
M Sc Botany
BOT2C05 : CYTOGENETICS GENETICS BIOSTATISTICS PLANT BREEDING AND EVOLUTION
2024 Admission Onwards

Time:3 Hours   Maximum Weightage:30

Part A

*Short answer type questions: Answer **any four** questions. Weightage **2** for each question.*
(4x2 = 8 Weightage)

1. State any one sex linked genetic disorder. [BTL1]

2. Define Ogive. [BTL1]

3. Define the physical and chemical cellular parameters assayed by flow cytometry. [BTL2]

4. Examine any two types of structural chromosomal aberrations and its significance in evolution. [BTL3]

5. Explain symmetric and asymmetric distribution curve. [BTL4]

6. Examine the inheritance of holandric genes. [BTL4]

7. Evaluate Hardy Weinberg law. [BTL2]

Part B

*Short essay-type questions: Answer **any four** questions. Weightage **3** for each question.*
(4x3 = 12 Weightage)

8. List out the characteristic features of Robertsonian translocation. [BTL1]

9. State standard deviation for grouped and ungrouped data. [BTL4]

10. Examine the modern methods of plant breeding. [BTL3]

11. Examine the use of *Neurospora crassa* in various aspects of biology. [BTL5]

12. Write a note on cryopreservation of germplasm. [BTL3]

13. Examine in detail the various different modes of speciation. [BTL4]

14. Explain farmer's rights. [BTL4]

Turn Over

Part C

*Essay-type questions: Answer **any two** questions. Weightage **5** for each question.*
(2x5 = 10 Weightage)

15. Explain the selection process in plant breeding.   [BTL1]

16. Explain briefly about regression analysis.   [BTL2]

17. Determine in detail the various evidences for evolution.   [BTL3]

18. Write a critical account on the Mendelism on the basis of modern concept of gene. [BTL4]

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