

DSC1

CE650

V Semester B.Sc. Examination Oct/Nov-2019

CBCS (2016 Batch onwards)

DSE-1

SERICULTURE

~~Paper-V~~: Cytogenetics and Breeding of Mulberry and Silkworm

Time: 3 Hours

Max.Marks:70

*Instructions: 1) All Questions are Compulsory.
2) Draw diagrams wherever necessary.*

I. Answer the following questions:

(5x1=5)

- 1) Write the differences between haploid and diploid cell.
- 2) Write the chromosome number of mulberry.
- 3) What is parthenocarpy?
- 4) Define mutation.
- 5) Write any two hereditary traits of egg.

II. Write short notes on **any five** of the following:

(5x3=15)

- 6) Lampbrush chromosome.
- 7) Inversion.
- 8) Plant Acclimatization.
- 9) Physical mutagen.
- 10) Disease resistance
- 11) Linkage group.
- 12) Racial characters of Chinese type cocoons.

III. Answer **any four** of the following:

(4x5=20)

- 13) Explain Interphase stage.
- 14) Write a note on physical mutagenesis.
- 15) Name the appliances used and their uses in mulberry hybridization.
- 16) Explain conventional methods of breeding in mulberry.
- 17) Explain line breeding in silkworm.
- 18) Explain parthenogenesis in silkworm.

IV. Answer **any three** of the following:

(3x10=30)

- 19) Write in detail the various stages of Meiosis-I.
 - 20) Explain megasporogenesis and development of female gametophyte in mulberry.
 - 21) Explain:
 - a) Translocation.
 - b) List out the roles of IBPGR.
 - 22) Give a detail account on silkworm germplasm bank.
 - 23) List out the objectives of silkworm breeding and explain line breeding and cross breeding.
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