



Sl.No. 0005

Total No. of Pages : 2

**V Semester B.Sc. Examination, March/April - 2021****(Scheme : CBCS) (2016-2018 Batches)****SERICULTURE (Paper - V)****Cytogenetic and Breeding to 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 :****[5 × 1 = 5]**

- 1) Give an example for polytene chromosome.
- 2) What is mutation?
- 3) What is quarantine?
- 4) What is the chromosome numbers in silkworms?
- 5) What is plant introduction?

**II. Write short notes on any five of the following :****[5 × 3 = 15]**

- 6) Duplication.
- 7) Anaphase I.
- 8) Parthenocarpy.
- 9) Drought resistance.
- 10) Acclimatization.
- 11) Sex limited races.
- 12) Linkage group.

**P.T.O.**

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

[4 × 5 = 20]

- 13) Explain anaphase and telophase stages in mitosis.
- 14) Describe the embryo and seed in mulberry.
- 15) Explain translocation.
- 16) Explain polyploidy breeding in mulberry.
- 17) Give an account on silkworm germplasm bank.
- 18) Explain the hereditary traits of silkworm larva.

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

[3 × 10 = 30]

- 19) What is mutation breeding? Give an account of physical and chemical mutagens.
- 20) Explain hybridization techniques in mulberry.
- 21) Explain :
  - a) Clonal selection
  - b) Quarantine procedure
- 22) Describe spermatogenesis in silkworm.
- 23) Explain inheritance of cocoon colours in silkworm.

