CE 650

V Semester B.Sc. Examination, October/November 2018
(CBCS) (2016 Batch Onwards)
SERICULTURE
Paper – V : Cytogenetics and Breeding of Mulberry and Silkworm

Time : 3 Hours Max. Marks : 70

Note : *1) Answer **all** questions.*
*2) Draw diagram **wherever** necessary.*

I. Answer the following : **(5×1=5)**

1) Write the cell cycle.
2) What is aneuploidy ?
3) What is parthenocarpy ?
4) What are sex limited breeds ?
5) What is hybrid vigour ?

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

6) Rough endoplasmic reticulum.
7) Chromosomal delection.
8) Polyembryony in mulberry.
9) Quarantine.
10) Silkworm germplasm bank.
11) Polyhybrids.
12) Race authorization.

III. Answer **any four** of the following : **(4×5=20)**

13) Explain the metaphase and anaphase of mitosis.
14) Give an account on the deletion and duplication with their cytoplasmic effects.
15) Describe the megasporogenesis in mulberry.
16) Explain the steps of hybridization techniques in mulberry.
17) Explain the role of 'W' chromosome in sex determination of silkworm.
18) Give an account on cross breeding in silkworm.

P.T.O.

IV. Answer **any three** of the following : **(3×10=30)**

19) Explain different stages of prophase – 1.

20) Give an account on chemical mutagenesis.

21) Explain :

a) Plant introduction.

b) Oogenesis in *Bombyx mori L.*

22) Explain the development of microsporogenesis and male gametophyte in mulberry.

23) Give an account on hereditary traits of silkworm larva.