T. Y. B.Sc. SEM-V (CBCS-2016 COURSE): WINTER- 2018
SUBJECT: BOTANY: GENETICS AND BIOSTATISTICS

Day: Wednesday
Date: 17/10/2018

Time: 03.00 P.M. To 06.00 P.M
Max. Marks: 60

W-2018-0751

N.B:

1) All questions are **COMPULSORY.**
2) Figures to the right indicate **FULL** marks.
3) Draw neat and labeled diagrams **WHEREVER** necessary.

Q.1 Attempt **ANY TWO** of the following: **(12)**

a) Describe alleles in plants self-incompatibility.

b) Describe transitions and trans version mutations.

c) Give significance of descriptive statistics in genetics.

Q.2 Attempt **ANY TWO** of the following: **(12)**

a) Give difference between Back cross and Test cross.

b) Explain in brief multiple factor hypothesis.

c) Give definition and concept of cytoplasmic inheritance.

Q.3 Attempt **ANY TWO** of the following: **(12)**

a) Describe coupling and repulsion phases.

b) Give types and effects of duplication in DNA.

c) Describe mean, deviation and standard deviation.

Q.4 Attempt **ANY THREE** of the following: **(12)**

a) Explain detection of linkage.

b) Describe types of the mutations.

c) Describe the Mendel's monohybrids and dihybrids ratio

d) Explain the concept of quantitative traits in genetics.

Q.5 Attempt **ANY FOUR** of the following: **(12)**

a) Give the significance in chromosome mapping.

b) State characters of multiple alleles.

c) Explain duplicate and epistatic factors in brief.

d) Explain coefficient of variation.

e) Describe the central value and dispersion.

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