T.Y.B.SC. SEM – V (2014 COURSE) : SUMMER - 2018
SUBJECT: BOTANY: GENETICS & BIOSTATISTICS

Day: **Wednesday** Time: **03.00 PM TO 05.00 PM**
Date: **18/04/2018** Max. Marks: 40

S-2018-0749

N.B.:

1) All questions are **COMPULSORY**.
2) Figures to the right indicate **FULL** marks.
3) Neat labelled diagram should be drawn **WHEREVER** necessary.

Q.1 Attempt any **TWO** of the following: **(10)**

a) What is linkage? Describe linkages in Maize.

b) What is gene interaction? Explain complementary gene interaction with suitable example.

c) Explain quantitative traits.

Q.2 Attempt any **TWO** of the following: **(10)**

a) Explain coupling and repulsion phases.

b) Give significance of chromosome mapping.

c) Explain the spontaneous and induced mutations.

Q.3 Attempt any **TWO** of the following: **(10)**

a) Describe effects of inversions and translocations in genetic makeup.

b) Explain descriptive statistics.

c) Describe mean deviation and standard deviation.

Q.4 Attempt any **FIVE** of the following: **(10)**

a) Explain monohybrid ratio.

b) Give characters of multiple alleles.

c) Explain concept of deletion.

d) Define cytoplasmic inheritance.

e) Explain standard error.

f) Give various types of mutagens.

g) Explain epistatic factors.

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