

2015
(December)

Time : 2 hours

Full Marks : 40

The questions are of equal value.

*Answer four questions from any one
Group as per your specialization.*

Group – A

(PLANT BIOTECHNOLOGY)

1. Describe the different tissue culture media studied by you.
2. Write short notes on the following :
 - (a) Somaclonal variation
 - (b) Sexual incompatibility

3. Give an account of viral vectors and their applications.
4. Write short notes on the following :
 - (a) Reporter genes
 - (b) Gene silencing
5. Write an essay on terminator seed technology.
6. Write short notes on the following :
 - (a) Antifungal proteins
 - (b) Alpha amylase inhibitor
7. Give a concise account of applications of molecular markers in plant breeding.
8. Write short notes on the following :
 - (a) Chloroplast transformation
 - (b) Green house technology

Group – B

(AGRICULTURAL BIOTECHNOLOGY)

1. What is a mutation ? Classify. How do you induce mutations ?

VT – 9/2

(2)

Contd.

2. Write short notes on the following :
 - (a) Extrachromosomal inheritance
 - (b) Aneuploids
3. Describe the role of genetics in evolution.
4. Write short notes on the following :
 - (a) Antifertility animal vaccines
 - (b) Cloning for conservation of endangered species
5. How do you detect meat adulteration using DNA based methods.
6. Write short notes on the following :
 - (a) Transgenic animal production
 - (b) Detection of adulteration with animal protein
7. Describe the breeding methods in self pollinated crops.
8. Write short notes on the following :
 - (a) Genetic basis of heterosis
 - (b) Eco-TILLING



VT – 9/2 (100)

(3)

M. Sc.—Biotech—IIIS

(3.4)