

M.Sc.(Botany) Fourth Semester Old
**BOT-14-Paper-XIV: Plant Resource Utilization, Bioethics, Biosafety, Plant
Breeding & Biostatistics**

P. Pages : 1

Time : Three Hours



GUG/W/18/2359

Max. Marks : 80

- Notes :
1. All questions are compulsory and carry equal marks.
 2. Draw well-labelled diagrams wherever necessary.

1. Give an account of origin, evolution and uses of Food Crop (rice). 16

OR

- a) Fodder and Forage plants. 8
- b) Medicinal and Aromatic Plants. 8

2. What is sampling? Write about sampling procedure and homogenization of samples. 16

OR

Write on:

- a) Coefficient of variation. 8
- b) Chi-square test and its application. 8

3. Describe methods of breeding sexually and vegetatively propagated crops. 16

OR

Write on:-

- a) Hardy-Weinberg equilibrium and its deviation. 8
- b) Professional ethics and ethical decision making. 8

4. Describe Biosafety regulations in the handling of recombinant DNA processes and products in institutions and industries. 16

OR

Write on:

- a) Biosafety assessment procedure in India and abroad. 8
- b) The GM-Food debate and biosafety assessment procedures for biotech foods. 8

5. Write short notes on:-

- a) Petro crops. 4
- b) Frequency distribution. 4
- c) Heterosis. 4
- d) Transgenic food crops. 4
