

Roll No.....

Total No. of Printed Pages: 1

Total No. of Questions: [09]

B. Sc. (Hons.) Agriculture (Semester – 3rd)
FUNDAMENTALS OF PLANT BREEDING
Subject Code: BAGRS1355
Paper ID: [19130124]

Time: 03 Hours

Maximum Marks: 60

Instruction for candidates:

1. Section A is compulsory. It consists of 10 parts of two marks each.
2. Section B consist of 5 questions of 5 marks each. The student has to attempt any 4 questions out of it.
3. Section C consist of 3 questions of 10 marks each. The student has to attempt any 2 questions.

Section – A

(2 marks each)

Q1. Attempt following questions:

- a. Write the name of dwarfing gene of Wheat and Rice crop.
- b. Define apomixes and its types.
- c. Define genetic advance with formula.
- d. Define the Introduction and its types.
- e. Define the genetic of variance and their types.
- f. Define inbred and pure line.
- g. Define IPR and their types.
- h. Write the function of colchicines with its chemical formula
- i. What do you mean by participatory plant breeding?
- j. What do you mean by Hardy and Weinberg law?

Section – B

(5 marks each)

- Q2. What is male sterility? Discuss their scope in plant breeding.
- Q3. Write the major achievement of plant breeding?
- Q4. What is centre's of origin? Write their types with suitable examples.
- Q5. What is polyploidy? Write the role of crop improvement program.
- Q6. What is MAS? Discuss their role of crop improvement program.

Section – C

(10 marks each)

- Q7. Explain the mutation breeding. Describe the role of crop improvement program.
- Q8. Describe the procedure of backcross method for the transfer of a receive gene.
- Q9. Define Heterosis. Explain the dominance and over dominance hypothesis.