Roll No…….. **Total No. of Printed Pages: [1]**

Total No. of Questions: [09]

B.Sc. (Hons.) Agriculture (Semester – 5th)
CROP IMPROVEMENT-I (KHARIF CROPS)
Subject Code: BAGRS1555
Paper ID: [19130147]

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 the following:

a) Describe the origin and domestication of rice crop.
b) What are major breeding objectives in rice crop?
c) Describe the origin and distribution of maize crop.
d) Give Chromosome number of all species under category of Maize.
e) Who coined term Ideotype and what is its relevance in plant breeding.
f) What are the genetic differences between *Desi* and American gram?
g) What do you mean by Mutation Breedig.
h) Give wild species of Bajra.
i) Give distribution of Sorghum.
j) Write three four lines on rice breeding program in India.

Section – B **(5 marks each)**

Q2. Give botanical classification of rice. Differential between Aus, Aman and Boro rice
Q3. Give floral biology and wild species of maize.
Q4. Write short note on mutation breeding with examples.
Q5. Write short note on Heterosis breeding with examples in *Kharif* crops
Q6. Describe breeding objectives for Sugarcane.

Section – C **(10 marks each)**

Q7. Describe breeding procedures in rice crop. Mention two breeding centers for rice.
Q8. Describe breeding procedures in maize crop.
Q9. Write short note on mutation breeding.