



KERALA AGRICULTURAL UNIVERSITY
B.Sc (Hons.) Agriculture 2016 Admission
II Semester Final Examination-August-2017

Pbgn.1202

Fundamentals of Plant Breeding (2+1)

Marks: 50
Time: 2 hours

- I Fill up the blanks** (10x1=10)
- 1 Genetic constitution of cross pollinated population is -----
 - 2 Sum total of genes in a species refers to -----
 - 3 An example for often cross pollinated crop-----.
 - 4 Distyly is common in family -----
 - 5 A crop which originated in USA centre of origin-----
- State True/False**
- 6 The International Atomic Energy Agency (IAEA) is located at Austria.
 - 7 Single seed descent is the most exploited method for cross pollinated crops.
 - 8 IR8 is the first rice hybrid released in India.
 - 9 CGMS system is the most commercially exploited male sterility system in rice.
 - 10 The gene for gene hypothesis was proposed by Russell.
- II Write short notes on any FIVE** (5x2=10)
- 1 Clone
 - 2 Acclimatization
 - 3 Mutagens
 - 4 Geitonogamy
 - 5 Hardy Weinberg Law
 - 6 Farmer's Right
 - 7 Marker Assisted Selection
- III Answer any FIVE** (5x4=20)
- 1 Define heterosis. Write the theories of heterosis with suitable examples.
 - 2 Compare and contrast between bulk method of breeding and pureline selection.
 - 3 Write the differences in genetic constitution of self and cross pollinated crops with suitable examples.
 - 4 Elucidate the mechanisms promoting cross pollination.
 - 5 Define mutation. Write the procedure for handling mutagenic population.
 - 6 Back cross breeding.
 - 7 Classify Self Incompatibility and list the measures in overcoming the same.
- IV Write essay on any ONE** (1x10=10)
- 1 Define and classify male sterility. Discuss its relevance in plant Breeding
 - 2 Define ploidy. Write an essay on different types of polyploids with examples.
