KERALA AGRICULTURAL UNIVERSITY

B.Sc.(Hons.) Ag. 2017 Admission

III Semester Final Examination-January-2019

bgn.2103 Crop Improvement - I (1+1) **Marks: 50**

Time: 2 hours

I Fill in the blanks **(10x1=10)**

1 The wild species utilized to induce male sterility in cultivated Sesamum .....
2 The first chilli hybrid in India is .....
3 Transfer of few genes from one species into the full diploid chromosome complement of another species is known as .....
4 Father of hybrid rice .....
5 Improved varieties of recent past are known as .....
6 The dwarfing gene in wheat is .....
7 Loss of genetic diversity between and within populations of thesame species over a period of time .....
8 The important source of cytoplasmic genetic male sterility in pearl millet .....
9 The scientific name of Okra is.....

Expand

10 NBPGR

II Write Short notes on ANY FIVE of the following **(5x2=10)**

1 Classification of seeds based on storability.
2 Ear to row method of progeny selection in maize
3 Classification of cultivated sorghum based on coverage of glume on the grain.
4 Floral Biology of black gram.
5 Differentiate between Indica, Japonica and Javanica sub species of Asian rice.
6 Types of Sunflower cultivars.
7 Breeding objectives of brinjal.

III Answer ANY FIVE of the following **(5x4=20)**

1 Classification of gene pool system.
2 Three line breeding system in rice.
3 Breeding objectives of wheat.
4 Origin of cultivated rice.
5 *In situ* conservation Vs *Ex situ* conservation.
6 Types of gene banks.
7 Steps in ideotype breeding.

IV Write an essay on ANY ONE of the following **(1x10=10)**

1 What is plant breeding? Give general breeding objectives of crop improvement and different breeding methods followed in cross pollinated crops.
2 Define ideotype breeding. Compare the features of traditional breeding and ideotype breeding. Enumerate the ideotype models proposed in rice, wheat and maize.

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