

Cat. No: Pbgp 2103

Title: Principles of plant breeding (2+1)

Marks: 50.00

Time: 2 hours

I. Answer all questions

Define the following

(10 x 1=10)

1. Hardy Weinberg law
2. Isogenic line
3. Random Mating Population
4. Apospory
5. Recurrent parent

Fill in the blanks

6. _____ is an example for intergeneric cross
7. Nobel prize for mutagenic action of X rays was given to _____ in 1946
8. An individual with two or more different genomes is called _____
9. _____ crops are highly heterozygous and show severe inbreeding depression
10. Seeds are formed and embryo develop without fertilization is called _____

II Answer any Five questions

(5 x 2=10)

1. Classification of Apomixis
2. Physical mutagens
3. Define inbreeding and write about its effects
4. Homomorphic system of Incompatibility
5. SSD and its advantages
6. Three way cross hybrids
7. Evolution of brassica species

III Write short essays of any Five questions

(5 x 4=20)

1. Briefly describe the procedure of pedigree method breeding. Discuss the achievements through this breeding.
2. Write about the classification of polyploids with examples
3. Write an essay on CGMS system and its achievements
4. Differentiate between synthetics and composites with examples
5. What is wide hybridization and write its problems and achievements
6. Write about the different types of recurrent selection with examples
7. Compare clone, pureline, inbred and hybrid in a tabular form

IV Write essay on Any ONE

(1 x 10=10)

1. Write an essay on heterosis breeding and its achievements in cereal crops
2. Enumerate different types of molecular markers. List out their applications in plant breeding