MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE
SEMESTER END EXAMINATION

B.Sc. (Agri.)

Semester	: **III (New)**	**Term**	: **I**	**Academic Year**	: **2011-12**
Course No.	: BOT 233	**Title**	: **Principles of Plant Breeding**		
Credits	: 3(2+1)				
Day & Date	: Wednesday, 21.09.2011	**Time**	: 9.00 to 12.00	**Total Marks**	: **80**

Note :
1. Solve **ANY EIGHT** questions from **SECTION "A".**
2. All questions from **SECTION "B"** are compulsory.
3. All questions carry equal marks.
4. Draw neat diagrams wherever necessary.

SECTION "A"

Q.1 Discuss in short the General objectives of plant breeding.

Q.2 Define male sterility. Explain in detail different types of male sterility.

Q.3 Write a detail note on incompitability.

Q.4 Define mutation. Explain causes and characteristics of mutation. Give the types of mutation with examples.

Q.5 Write the history of plant breeding.

Q.6 Define reproduction and explain different modes of reproduction.

Q.7 Define pollination and describe different modes of pollination.

Q.8 Define heterosis and explain different theories of heterosis.

Q.9 Write short notes on the following.

a) Sythetic varieties b) Composite varieties

Q.10 Define polyploidy and describe different types of polyploidy.

SECTION "B"

Q.11 Fill in the blanks.

1) Progeny of a single plant obtained by asexual reproduction is known as _____.
2) The progeny of a clone is genetically _____.
3) Accumulation of desirable alleles in a population through various breeding techniques is known as _____.
4) Sudden and heritable change in the characteristics of the plant is called as _____.
5) Genetically similar population is known as _____ population.
6) There are two of plant introductions _____ and _____ introduction.
7) _____ refers to the homogeneous progeny of a self pollinated homozygous plant.
8) _____ refers to record of the ancestry of an individual selected plant.

Q.12 Define the following terms.

1) Micro mutations 2) Polyploids 3) Distant hybridization
4) Backcross 5) Plant introduction 6) Acclimatization
7) Pureline selection 8) Mass selection

✧ ✧ ✧ ✧ ✧ ✧ ✧ ✧ ✧ ✧ ✧