

Hemchandracharya North Gujarat University
Advance diploma in Agriculture and Soil Sciences
End term Examination Semester IV
Subject: AS-404 (Principles of plant breeding)

Time: 2 hrs

Date: 4/ 5 /2017

Marks: 40

Attend the following multiple questions

10

1. Hybridization is common in _____ crop.
A. wheat B. Cotton C. Ginger D. Sorghum
2. _____ is father of genetics
A. Mendel B. Brown C. Nicholas D. Hook.
3. Wilt resistant hybrid of castor is _____
A. GCH-4 B. GCH-5 C. GCH-6 D. GCH-7
4. The quickest method of plant breeding is
A. Selection B. Introduction C. Hybridization D. Mutation Breeding
5. Somatic hybridization is achieved through _____
A. Grafting B. Conjugation C. Protoplast fusion D. R-DNA Technology
6. Bagging is done to avoid _____
A. Self Pollination B. Mixing C. Protection from foreign pollen D. All of the above.
7. Sonalika and Kalyan sona are hybrid varieties of _____
A. Maize B. Wheat C. Rice D. Sugarcane.
8. Selection of homozygous plant is through _____
A. Mass selection B. Pureline selection C. Both A and B D. None of the above
9. Who is father of tissue culture technique?
A. Haberlandt B. Bonner C. Laibatch D. Gautheret
10. Male sterility in plant is defined as _____
A. Absence of pollen grain B. Non-functional pollen grain C. Unable to release functional pollen grain D. All of the above.

Attend the following multiple questions (Any four)

20

1. Explain the following terms (a) Self pollination (b) Cross pollination (c) Apomixis (d) Hybridization (e) male sterility.
2. Write any five objectives for hybridization.
3. Differentiate self and cross pollination.
4. Significance of breeding in crop improvement.
5. Write a note on vegetatively propagated crop.

Attend the following multiple questions (Any one)

10

1. Describe back cross method and pedigree method.
2. Describe method of breeding in self pollinated crop through pure line selection.