

M.Sc. (Ag.) Examination, 2018
Semester-II
Horticulture
Course No.: HOR 523
(Breeding of Vegetable Crops)

Time: Three hours

Full Marks: 50

Questions are of value as indicated in the margin

*Answer **any five** questions*

1. Discuss on history of vegetable breeding in India with special reference to IARI and AICVIP. 10
 2. Write the breeding objectives of okra, tomato, carrot and cucumber. 2.5x4=10
 3. Enlist cole crops with their botanical names and edible part. Write in brief on origin and development of various cole crops. Suggest the method of improvement of cabbage. 3+3+4 =10
 4. Why the wild and related species of any crop are important in crop breeding programme? Enlist the wild species and their contributing traits in tomato and brinjal. 2+(4+4) =10
 5. Answer the following questions (**any two**): 5+5 =10
 - a. Male sterility and its usefulness in vegetable crops
 - b. Self-incompatibility and its usefulness in vegetable crops
 - c. Heterosis breeding with special reference to vegetable crops
 6. Discuss in brief on origin, species diversity, breeding objectives, breeding methods and breeding achievements in bottle gourd. 2+2+2+2+2 =10
 7. Discuss in brief (**any two**): 5+5=10
 - a. Various sex forms in cucurbits with suitable example
 - b. Technique of hybrid seed production in tomato
 - c. Resistance breeding against brinjal shoot and fruit borer
 8. Write short notes (**any four**): 2.5x4=10
 - a. Purchase of hybrid seeds every year
 - b. Flower types and its relationship to fruiting in brinjal.
 - c. Diversity in carrot root colours
 - d. Traits of Indian tropical cauliflower
 - e. Gene symbols and their corresponding traits in squash and pumpkin
 - f. Indian *Momordica* species
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