

M.Sc. (Ag.)Semester -II Examination 2015

Horticulture

Course : 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. Briefly note the history of vegetable breeding in India. Justify why 'selection' is called the oldest breeding method? 7+3=10
 2. What are 'Cole crops' and where did they originate? Describe the common breeding methods used in improvement of cauliflower. 3+7=10
 3. What are the breeding objectives of table purpose and processed potato? Enumerate the breeding methods followed in potato. 3+7=10
 4. What is heterosis? Write the importance of heterosis in crop breeding programme. Enlist the vegetable cultivars developed through heterosis breeding in India. 1+3+6=10
 5. Enumerate the important related species of tomato. Schematically note down the steps for hybrid seed production in tomato. 4+6=10
 6. What is male sterility and self-incompatibility? Mention the implications of these two systems in breeding of vegetable crops. 4+6=10
 7. Briefly state the floral biology of brinjal and okra. Why okra is designated as often cross-pollinated crop? What are the important breeding objectives of French bean and brinjal? 4+2+4=10
 8. Write short notes (**any four**) : 2.5×4=10
 - (i) Breeding objectives in carrot
 - (ii) Farmers' Right
 - (iii) Seedless watermelon
 - (iv) Different sex forms of cucurbits
 - (v) Resistance breeding for YVMV in okra
 - (vi) Botany of chilli
 - (vii) Pure line vs. inbred
 - (viii) Breeding systems in vegetable crops
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