

M.Sc. (Ag.) Examination, 2019
Semester-II
Genetics and Plant Breeding
Course : GPB-512
(Breeding Legumes, Oilseeds and Fibre Crops)

Time : 3 Hours

Full Marks : 50

Questions are of value as indicated in the margin

Answer **any five** questions from the following

1. Write short notes (**any five**) : 5×2=10
 - a) ICRISAT
 - b) Wild progenitors of ground nut
 - c) Antinutritional factors
 - d) Quality characters for jute fibre
 - e) Hybrid varieties of castor
 - f) Differentiate two cultivated species of Jute
 - g) Triangle of 'U'
 2. What are the different causes for low productivity of pulse crops in West Bengal? What are the common pulses cultivated in West Bengal with name of two varieties each? Briefly point out problems and prospects of interspecific crosses in pulse crop improvement. 3+3+4=10
 3. Write down evolution and distribution of pigeonpea. What are the different morphological and molecular descriptors used for differentiating pigeonpea accessions? Briefly explain the hybrid technology in pigeonpea. 3+3+4=10
 4. What are the different breeding objectives in chickpea? Discuss the achievements of modern plant breeding approaches for chickpea improvement. 5+5=10
 5. Briefly discuss evolution and distribution of groundnut. What are the different breeding objectives of soybean? Point out the utilization of wild relatives for yield and quality improvement in soybean. 3+4+3=10
 6. What are the breeding objectives of rapeseed and mustard? Briefly discuss the different breeding improvement methods with achievements for abiotic and biotic stress tolerance in rapeseed and mustard. What are the different quality characteristics of mustard. 4+4+2=10
 7. What are the prospects of sesame and sunflower crop in West Bengal? Give name of few cultivated varieties of sesame and sunflower. Give a brief note of hybrid sunflower, constraints and achievements. 3+3+4=10
 8. Briefly discuss the evolution of cotton. Narrate the technique of hybrid seed production in cotton. Briefly point out the problems and prospects of *Bt* cotton in India. 3+3+4=10
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