



Q.No.	Questions	CO	Bloom Taxonomy Category	Marks
Section I				
1	Short Answer type questions.			
a	Illustrate how knowledge of centre of origin and crop distribution assists in the conservation of plant genetic resources.	CO1	Apply	4 x 5 = 20
	or			
b	Explain the importance of crop wild relatives (CWRs) in crop improvement and briefly discuss the methods used for their conservation.	CO1	Remember	
	or			
c	Explain the importance of moisture content in the storage of orthodox and recalcitrant seeds with examples.	CO2	Understand	
	or			
d	Illustrate the procedure for the single seed decent method of breeding for improvement of cross pollinated crops.	CO2	Apply	
	or			
e	Illustrate hybrid seed production of rice using A, B, and R lines.	CO3	Apply	
	or			
f	Describe different mechanisms of Cross-pollination.	CO3	Understand	
	or			
g	Give a brief comparison of conventional and molecular plant breeding.	CO4	Remember	
	or			
	Explain the role of male sterility systems in hybrid seed production.	CO4	Understand	
Section II				
	Long Answer type questions.			2 x 15 = 30
2	a. Differentiate between quantitative and qualitative characters highlighting their inheritance patterns and implication for breeding.	CO2	Analyze	10
	b. Define plant genetic resources and explain their significance in crop improvement.	CO2	Understand	5
	or			
3	a. Evaluate the effectiveness of in situ and ex situ conservation methods in maintaining genetic diversity.	CO2	Evaluate	10
	b. Briefly explain germplasm conservation.	CO2	Understand	5
4	a. Evaluate the effectiveness of different breeding methods for improving selected quality parameters in crops, and recommend the most suitable approach with justification.	CO3	Evaluate	10
	b. State the major breeding objective of pulses and cereals.	CO3	Remember	5
	or			
5	a. Appraise the suitability of different breeding methods for developing abiotic stress resistance in crops, considering their efficiency, limitations, and applicability.	CO3	Analyze	10
	b. Discuss different mechanisms of self-pollination.	CO3	Understand	5

Course Outcome:

At the end of the course, the students will be able to

CO1 Know about the centre of origin and wild relatives of various kharif crops.

CO2 Understand the plant's genetic resources, its conservation process and the genetics of qualitative and quantitative characters.

CO3 Compare the new genetic approaches with the conventional approaches.

CO4 Demonstrate the field experiments and apply field techniques for hybrid seed production for achieving a definite ideotype & climate resilient crop varieties for the future.