

## **Crop Improvement – I (Kharif crops)**

### **Unit-I**

5 marks

1. Discuss the origin, distribution and wild species used in pearl millet breeding.
2. Write down the botanical name, chromosome number, origin and classification of cowpea.
3. Describe the origin, cultivated species and evolution of tobacco.
4. Write down the botanical name, chromosome number, origin and cultivated species of pumpkin.

10 marks

1. Discuss the origin, distribution, types, progenitors, evolution and wild species for cotton improvement.
2. A) Discuss the origin, distribution, related wild species of Pearl Millet & Ragi  
B) Discuss the classification sorghum races based on coverage of glume with suitable diagrams and list out the wild species of sorghum.

### **Unit-II**

5 marks

1. Prepare a short note on classification of gene pool.
2. Discuss the types of seed collections
3. Discuss the kinds of germplasm
4. Differentiate qualitative and quantitative characters.

10 marks

1. Explain the six important activities of germplasm and list out the benefits of germplasm.
2. Discuss the important concepts of breeding self-pollinated, cross pollinated and vegetatively propagated crops
3. Describe briefly the plant breeding methods.

### **Unit-III**

5 marks

1. Discuss the different breeding methods used for rice crop improvement

10 marks

1. Explain the breeding objectives for rice crop improvement
2. A) Discuss the breeding objectives for maize crop improvement  
B) Explain the breeding methods used for maize crop improvement.