

MIZORAM PUBLIC SERVICE COMMISSION
MIZORAM CIVIL SERVICES (COMBINED COMPETITIVE)
MAIN EXAMINATION, 2023

AGRICULTURE PAPER-II

Time Allowed : 3 hours

FM : 100

Marks for each question is indicated against it.

Attempt any 5 (five) questions taking not more than 3 (three) questions from each Part.

PART - A

1. What is Heritability, Sterility and Incompatibility? Classify them with their application in crop improvement. **(10+10=20)**
2. Explain plant genetic resistance of insect and disease and types of resistance. What are the sources and breeding methods for resistance of insect and disease? **(20)**
3. What is Seed Certification? Mention and explain classes of seeds. Write down the purpose and importance of Seed Storage and management of pest and insects during seed storage. **(5+5+10=20)**
4. Write short notes on *any two* of the following: **(10+10=20)**
 - (a) C₃, C₄, and CAM mechanisms
 - (b) Plant growth substances and their role in crop production
 - (c) Plant stress physiology

PART - B

5. Discuss the role and importance of fruit and vegetable consumption in human health and disease prevention. Write and explain the major important nutrients and benefits obtained by eating fruits and vegetables. **(10+10=20)**
6. Describe biological control of crop pest and the different biological control agents with examples. Discuss one pest outbreak in Maize (NEH region) and different control measures. **(15+5=20)**
7. Discuss the trends in food production and consumption in India. What is National Food Security Mission (NFSM)? Write down the features and its impact of NFSM scheme in Agriculture sector? **(5+5+10=20)**
8. What is Protein Malnutrition or Protein Calorie Malnutrition (PEM or PCM)? Mention the types, causes and major symptoms of PEM or PCM. Write in brief the constraints and challenges in agro-processing industry. **(5+10+5=20)**