



**PUNJAB PUBLIC SERVICE COMMISSION**  
**COMBINED COMPETITIVE EXAMINATION**  
**FOR RECRUITMENT TO THE POSTS OF**  
**PROVINCIAL MANAGEMENT SERVICE, ETC -2021**  
**CASE NO. 3C2022**

**SUBJECT: AGRICULTURE (PAPER-I)**

**TIME ALLOWED: THREE HOURS**

**MAXIMUM MARKS: 100**

**NOTE:**

- I. All the parts (if any) of each Question must be attempted at one place instead of at different places.
- II. Write Q. No. in the Answer Book in accordance with Q. No. in the Q. Paper.
- III. No Page/Space be left blank between the answers. All the blank pages of Answer Book must be crossed.
- IV. Extra attempt of any question or any part of the question will not be considered.

**NOTE:**

**Attempt FIVE Questions In All. Attempt In Urdu or English.**

- Q.No.1** Dissemination of knowledge is of prime significance in the translation and adoption of farm practices. Write a detailed note on the use of modern approaches used in the dissemination of agricultural information to the stakeholders for enhancing farm productivity, marketing dynamics and sustainability of the system. **(20 marks)**
- Q.No.2** Quality of the produce is of prime significance for both local consumers and for export purpose. Which considerations must be observed for a safe supply and to meet WTO requirements in the food supply chain? **(20 marks)**
- Q.No.3** Describe the main objectives and characteristics of agroforestry. What are different agroforestry systems? **(10+10=20 Marks)**
- Q.No.4** What are research departments working on enhancing the use of bio fertilizers. Describe its importance in crop production and major limitations on the usage of these fertilizers? **(10+10=20 Marks)**
- Q.No.5** What are the recent advances in design of resource efficient farming system aimed at greater efficiency through altering crops, market and production systems. **(20 marks)**
- Q.No.6** Food security is an emerging threat, and huge foreign exchequer is spent on the import of food commodities. Describe threats and challenges relevant to food security and suggest possible strategies to overcome the same. **(20 marks)**
- Q.No.7** What are its different approaches to food processing in Pakistan? Write down the critical challenges for food processing industry along with its strategy and future prospects. **(10+10=20 Marks)**
- Q.No.8** Why Agro-biodiversity is important? What role Forest Department can play in conservation of bio-diversity? Elaborate in detail forest and land use policies in Pakistan. **(5+5+10=20 marks)**



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**SUBJECT: AGRICULTURE (PAPER-II)**

**TIME ALLOWED: THREE HOURS**

**MAXIMUM MARKS: 100**

**NOTE:**

- i. All the parts (if any) of each Question must be attempted at one place instead of at different places.
- ii. Write Q. No. in the Answer Book in accordance with Q. No. in the Q. Paper.
- iii. No Page/Space be left blank between the answers. All the blank pages of Answer Book must be crossed.
- iv. Extra attempt of any question or any part of the question will not be considered.

**NOTE:**

**Attempt FIVE Questions in All. Attempt in Urdu or English.**

- Q.No.1:** Define Hybridization and describe its various types with examples; also describe the significance of hybridization in plant breeding? **(20 Marks)**
- Q.No.2:** Explain the soil fertility problems of Pakistan and how soil organic matter play the role of catalyst for improvement soil health? **(10+10=20 Marks)**
- Q.No.3:** What is integrated pest management? What factors are considered important for integrated pest management for assuring sustainable crop production and healthy environment? **(10+10=20 Marks)**
- Q.No.4:** What are crop and growth models? Discuss factor affecting the expression of crop growth models. Elaborate how crop model(s) help in mitigating the threat of Climate change in Pakistan? **(10+10=20 Marks)**
- Q.No.5:** Discuss the propagation methods for fruit and ornamental plants nurseries? Explain the management and marketing strategies for establishing economical viable nursery business? **(10+10=20 Marks)**
- Q.No.6:** Describe the role of molecular markers in marker assisted breeding for the improvement of crop plants? **(20 Marks)**
- Q.No.7:** Define Polyploidy and describe various types of polyploidy; describe its role in agriculture with examples for the evolution of various crop species? **(20 Marks)**
- Q.No.8:** Write a short note on the followings: **(4x5=20 Marks)**
- i. Mutation breeding
  - ii. Agricultural pollution
  - iii. Role of organic matter in agriculture
  - iv. Role of tissue culture in agriculture