

## PUNJAB PUBLIC SERVICE COMMISSION

## COMBINED COMPETITIVE EXAMINATION FOR RECRUITMENT TO THE POSTS OF PROVINCIAL MANAGEMENT SERVICE, ETC -2022 CASE NO. 2C2023

SUBJECT:

AGRICULTURE (PAPER-II)

TIME ALLOWED:

THREE HOURS

MAXIMUM MARKS: 100

## MOTTE

- i. All the parts (if any) of each Question must be attempted at one place instead of at different
- 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	Describe Hardy Weinberg law along with its conditions of equilibrium? Justify with an Example. (20 Marks)
Q.No.2	Rank different strategies of resistance breeding for the improvement of the crops? Elaborate reason of ranking and express your perspective. (20 Marks)
Q.No.3	What is IPM? Describe the components of IPM for assuring sustainable crop production. (20 Marks)
Q.No.4	Describe types of germplasm resources. Explain different methods for screening of crop germplasm for the sources of disease resistance? (20 Marks)
Q.No.5	Define resistance, tolerance and susceptibility. Please give the details of the plant defence mechanisms against viral diseases. (20 Marks)
Q.No.6	Define Somaclonal variation. Describe its various factors and causes?
	(20 Marks)
Q.No.7	What is weathering? Give a brief overview of physical and chemical weathering.  Describe the factors controlling weathering.  (20 Marks)
Q.No.8	Write shorts notes on the followings: (5X4=20 Marks)
	i. Soil survey ii. Salt affected soil iii. Waterlogged soil iv. Soil fertility