

- Instructions: (1) This paper contains **FIVE** questions.  
 (2) All questions are compulsory.  
 (3) Question No. **2, 3, 4** have internal options.  
 (4) Figures in the right side in parenthesis indicate marks.

- Q:1** Distinguish between the following. (Any Two) **(10)**  
 1. Primary data v/s secondary data  
 2. Open-ended response v/s fixed-alternative questions  
 3. Univariate v/s bivariate data.  
 4. Null hypothesis v/s alternate hypothesis

- Q:2** What is Research? Explain with a diagram the different steps of a research process. **(10)**

**OR**

- Q:2** Write a note on survey research methods. **(10)**

- Q:3** Probability v/s non-probability-based sampling techniques. **(10)**

**OR**

- Q:3** Based on information of 1000 randomly selected fields about tenancy status of cultivation of fields and use of fertilizers, following data was collected: **(10)**

Particulars	Owned	Rented	Total
Using Fertilizers	416	184	600
Not using fertilizers	64	336	400
Total	480	520	1000

Using chi-square test, can you conclude that owner cultivators are more towards use of fertilizers at 5% significance level.

- Q:4** Explain in brief commonly used measurement scales namely nominal, ordinal, interval and ratio by citing examples. **(10)**

**OR**

- Q:4** Write a detailed note on writing and formatting of the reports. **(10)**

- Q:5** Select a title of your choice and design a questionnaire for the same. **(10)**