

2023

**AGS 3rd Semester Examination**

**B.Sc. Hons. in Agriculture**

**Statistical Methods**

PAPER — AGS-308

Full Marks : 50

Time : 2 hours



*The figures in the right-hand margin indicate marks.*

*Candidates are required to give their answers  
in their own words as far as practicable.*

*Illustrate the answers wherever necessary.*

Answer from **all** the Groups as directed.

**GROUP—A**

1. Answer **any five** questions from the following :

✓(a) What do you understand by statistics? Write  
down its limitations. 2×5=10

(b) Differentiate classification from tabulation.

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(Turn Over)

(2)

What do you understand by population and sample?

What do you mean by random sampling?

Mention the equation of simple correlation.

Write down the characteristics of measures of central tendency.

What do you understand by binomial distribution?

How diagrams are useful in representing statistical data?

**GROUP—B**

2. Answer any four questions from the following :  
5×4=20

(a) Briefly explain experimental unit and treatment. 2.5+2.5=5

Describe different types of data collection methods. 5

Differentiate primary data from secondary data. 5



(3)

Mention the classification of correlation. Explain the features of partial and multiple correlation. 5

Write down the steps involved in testing of hypothesis. 5

Briefly write down the condition, properties and application of T-test. 2+1+2=5

**GROUP—C**

3. Answer any two questions from the following :  
10×2=20

What do you understand by diagram? What are the merits and demerits of diagrams? Name different types of diagrams. A food contains the following nutrients. Draw a pie chart from the representing data :

Nutrients	Percentages
Protein	30%
Fat	10%
Carbohydrates	40%
Vitamins	15%
Minerals	5%



(4)

(b) What do you understand by sampling? Describe different methods of sampling. What is the probability of getting 53 Sundays when a leap year is selected at random?

1+5+4=10

What are the basic principles of design of experiment? Fill the ANOVA table of an RBD design :

5+5=10

Source of Variation	Degree of Freedom	Sum of Square	Mean Sum of Square	F value
Blocks	4	?	1.033	
Treatment	4	21.457	?	?
Error	?	?	1.023	
Total	24	?		

(d) Write short notes on any **five** of the following :  $2 \times 5 = 10$

(i) Standard Deviation

(ii) Box-plot technique

(iii) Probability

(iv) Chi-square test

(v) LSD

(vi) Cumulative frequency

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