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FACULTY OF ENGINEERING & TECHNOLOGY

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LECTURE- 1

BSc (AG)
2nd Year , IIIrd Sem.
Statistical Methods
AES-213



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Outline of lecture

- Introduction of Statistics & Application
- Origin
- What is Statistics ?
- Importance & Scope of Statistics
- Limitations of Statistics
- Test Your Skills (Questions based on Lecture)
- Suggested Readings & References



Introduction of Statistics & Applications

Origin

- The word '**Statistics**' has been derived from the Latin word '**Status**' which means a political state.
- A famous statistician, **Gottfried Achewall**, known as 'Father of Statistics.
- **Sir R. Fisher** is known as the father of modern statistics and experimental design.
- **Prof. P. C. Mahalanobis** is also known as the father of Indian Statistics.



Introduction of Statistics & Applications

What is Statistics ?

A branch of mathematics dealing with the collection, presentation, analysis and interpretation of numerical data.

This definition given by Bowley, Croxton & Cowden.

According to definition there are 4 stages-

- Collection & Organisation of data
- Presentation of data
- Analysis of data
- Interpretation of data



Introduction of Statistics & Applications

Importance & Scope of Statistics

Statistics and
Economics

Statistics and
Commerce

Statistics and
Astronomy

Statistics and
Meteorology

Statistics and
Auditing &
Accounting

Statistics and
Economic
Planning

Statistics and
Biology

Statistics and
Mathematics



Introduction of Statistics & Applications

Statistics and
Research

Statistics and
Natural
Sciences

Statistics and
Education

Statistics and
Business



Statistics and
Common Man

Statistics and
Farmers

Statistics and
Wars

Statistics and
Public Utility
Services

& many more ...

Introduction of Statistics & Applications

Limitations of Statistics

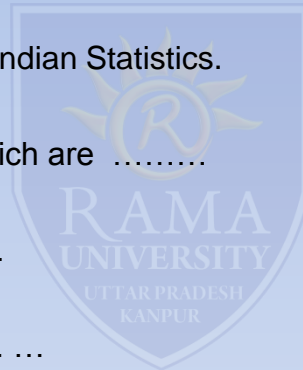
W.I. King rightly says “Science of statistics is the most useful servant, but only of great value to those who understand its proper use.”

- Statistics does not deal with individual item
- Statistics deals with quantitative data
- Statistics laws are true only on averages
- Statistics does not reveal the entire story
- Statistics is liable to be misused
- Statistical data should be uniform and homogeneous



Test Your Skills (Fill in the blanks)

1. Statistics is a branch of
2. is also known as the father of Indian Statistics.
3. Statistics is divided into two classes which are
4. Give one application of statistics is
5. Give one limitations of statistics is



Suggested Readings & References

Suggested Readings & References

- 1) Statistical Methods: P.N. Arora, Sumeet Arora & S. Arora; S. Chand & Company Ltd.
- 2) Fundamental of Mathematical Statistics: S.C. Gupta & V. Kapoor; Sultan Chand & Sons.
- 3) Statistics: M.R. Spiegel; Schaum's Outline Series, Mc-Graw Hill Publication.
- 4) Advanced Engineering Mathematics: Erwin Kreyszig; John Wiley & Sons Inc.
- 5) Elements of Statistics: J.P. Chauhan & S. Kumar; Krishna Publication.



The logo of Rama University is a shield-shaped emblem. At the top is a sun with rays. Below the sun is a circle containing the letter 'R'. Underneath the circle, the word 'RAMA' is written in a serif font, followed by 'UNIVERSITY' in a smaller font. At the bottom of the shield, the word 'Rama' is written in a script font.

*** THANK YOU ***