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FACULTY OF ENGINEERING & TECHNOLOGY

Dr. Vinod Kumar Yadav
Assistant Professor in Mathematics
Rama University Uttar Pradesh, Kanpur

LECTURE- 3

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

Dr. Vinod Kumar Yadav
Assistant Professor in Mathematics
Rama University Uttar Pradesh, Kanpur

Outline of lecture

- Graphical Representation of data
- Table Presentation
- Graph Presentation
- Construction of Graph
- Test Your Skills (Questions based on Lecture)
- Suggested Readings & References

Table Presentation

Tables, which convey information that has been converted into words or numbers in rows and columns, have been used for nearly 2,000 years. Anyone with a sufficient level of literacy can easily understand the information presented in a table. Tables are the most appropriate for presenting individual information, and can present both quantitative and qualitative information. Examples of qualitative information are the level of sedation, statistical methods/functions.

Graph Presentation

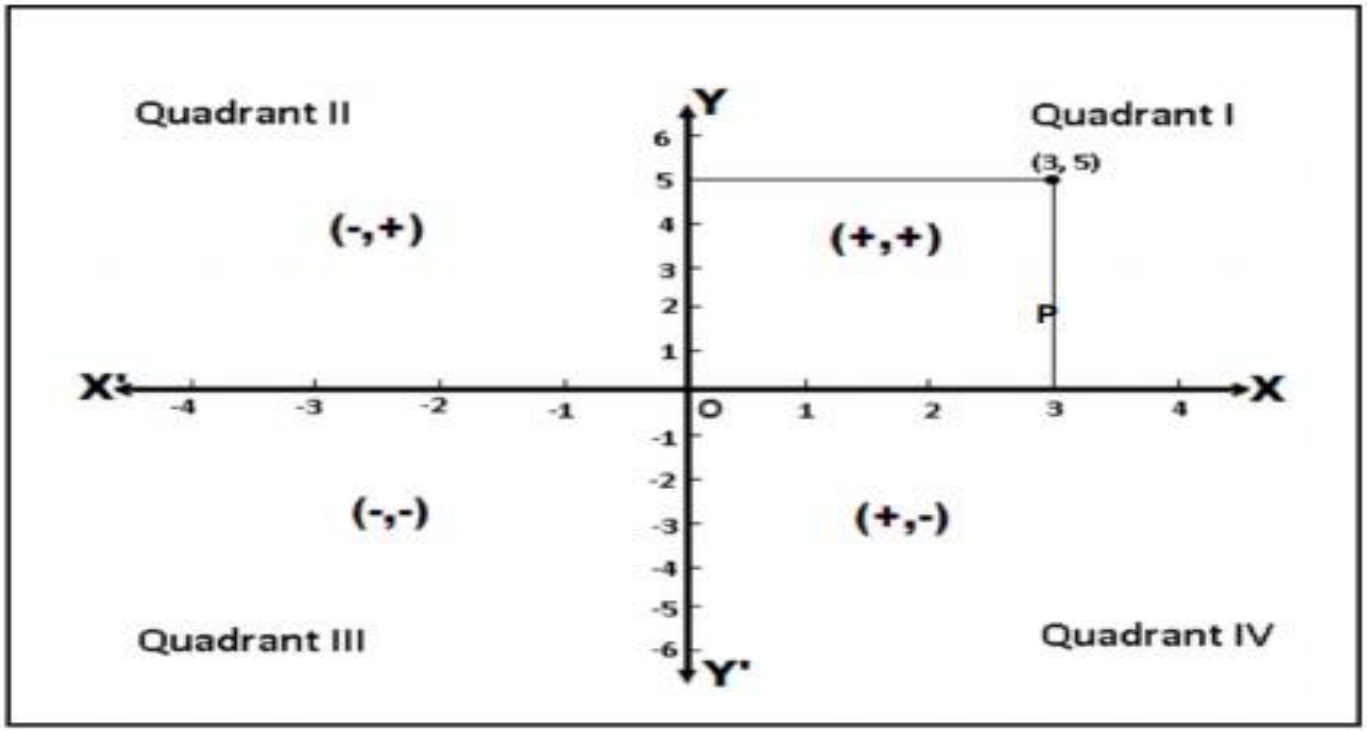
Apart from diagrams, Graphic presentation is another way of the presentation of data and information. Usually, graphs are used to present time series and frequency distributions. Whereas tables can be used for presenting all the information, graphs simplify complex information by using images and emphasizing data patterns or trends, and are useful for summarizing, explaining, or exploring quantitative data.

While graphs are effective for presenting large amounts of data, they can be used in place of tables to present small sets of data. A graph format that best presents information must be chosen so that readers and reviewers can easily understand the information. In the following, we describe frequently used graph formats and the types of data that are appropriately presented with each format with examples.

Construction of a Graph

The graphic presentation of data and information offers a quick and simple way of understanding the features and drawing comparisons. Further, it is an effective analytical tool and a graph can help us in finding the mode, median, etc. We can locate a point in a plane using two mutually perpendicular lines – the X-axis (the horizontal line) and the Y-axis (the vertical line). Their point of intersection is the Origin. We can locate the position of a point in terms of its distance from both these axes. For example, if a point P is 3 units away from the Y-axis and 5 units away from the X-axis, then its location is as follows:

Graphical Representation of Data



Graphical Plane

Test Your Skills (Fill in the blanks)

1. What is graph presentation…….
2. Plot the point (2,7) in X-Y axes …….
3. Plot the point (-3,-9) in X-Y axes …….
4. Plot the point (6,-4) in X-Y axes …….
5. Plot the point (1,0) , (3,-4) in X-Y axes …….

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.

* THANK YOU *