Chapter 4: PRESENTATION OF DATA

Important terms and concepts:

- 1. Tabulation Orderly arrangement of data in rows and columns.
- 2. Objectives of Tabulation:
 - a] Helps in understanding and interpreting the data easily.
 - b] It helps in comparing data.
 - c] It saves space and time.
 - d] Tabulated data can be easily presented in the form of diagrams and graphs.

3. Main parts of a table.

- a] Title of the table It is a brief explanation of contents of the table.
- b] Table number It is given to be used for reference.
- c] Captions A word or phrase which explains the content of a column of a table.
- d] Stubs Stubs explain contents of row of a table.
- e] Body of the table: Most important part of table as it contains data.
- f] Head note: Head note is inserted to convey complete information of title.
- g] Source note refers to the source from which information has been taken.
- h] Foot note: It is used for pointing exceptions to the data.

FORMAT OF TABLE

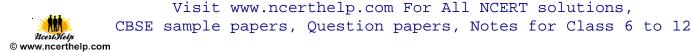
.....

Table Number:

Title:

[Head note]

Stub	Sub-head			Total [Rows]	
Stub	Column	Column	Column	Column	Total [Kows]
	Head	Head	Head	Head	
Stub entries	▲	BODY			
Total					
[colums]					



Source Note:

Foot Note :

Types of Table:

- 1. Simple Table – data are presented according to one characteristic only.
- 2. Double Table – data are presented about two interrelated characteristics of a particular variable.
- 3. Three way table – This table gives information regarding three interrelated characteristics of a particular variable.
- 4. Manifold table – This table explains more than three characteristics of the data.

Diagrammatic Presentation of Data

Utility or uses of diagrammatic presentation:

- 1. Makes complex data simple.
- 2. Diagrams are attractive.
- 3. Diagrams save time when compared to other methods.
- 4. Diagrams create a lasting impression on the minds of observers.

Limitations of diagrammatic presentation:

- They do not provide detailed information. 1.
- 2. Diagrams can be easily misinterpreted.
- 3. Diagrams can take much time and labour.
- 4. Exact measurement is not possible in diagrams.

Kinds of diagrams:

- I. Line diagrams - Lines are drawn vertically to show large number of items
- II. Bar diagram
- 1. Simple Bar diagrams – These diagrams represent only one particular type of data.
- 2. Multiple Bar diagrams – These diagrams represent more than one type of data at a time.
- 3. Subdivided Bar diagram or Component Bar diagram – These diagrams present total values and parts in a set of a data.
- Pie diagrams Circle may be divided into various sectors representing various III. components.

GRAPHIC PRESENTATION OF DATA

Advantages of Graphic Presentation:

- Graphs represent complex data in a simple form. 1.
- 2. Values of median, mode can be found through graphs.
- 3. Graphs create long lasting effect on people's mind.

Disadvantages of graphic Presentation:



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CBSE sample papers, Question papers, Notes for Class 6 to 12 m Graphs do not show precise values.

- 2. Only experts can interpret graphs.
- 3. Graphs may suggest wrong conclusions.

Rules of Constructing graph:

- 1. The heading of the graph should be simple, clear and self explanatory.
- 2. Graphs should always be drawn with reference to some scale.
- 3. False baselines should be drawn if the difference between zero and the smallest value is high.
- 4. Index should be made if different lines are drawn as in time series graphs.

Types of Graphs:

- 1. Line frequency graphs Such graphs are used to represent discrete series.
- 2. Histogram A two dimensional diagram whose length shows frequency and the breadth shows size of class interval.

<u>Frequency Polygon:</u> A histogram becomes frequency polygon when a line is drawn joining midpoints of tops of all rectangles in a histogram.

<u>Frequency Curve:</u> Smooth curve joining the points corresponding to the frequency and provides frequency curve of the data.

<u>Ogive</u> : A curve obtained by plotting frequency data on the graph paper.

1 mark questions:

- 1. Give the meaning of tabulation.
- 2. What is the heading of rows called?
- 3. When should false base line be used?
- 4. Which graph can be used to find value of median? [Hint: ogives]
- 5. What is histogram?
- 6. What is double table?

3 mark questions:

- 1. State three rules of drawing a table.
- 2. Represent the following data with Histogram

Wages	0-10	10-20	20-30	30-40	40-50	50-60
No. of Workers	5	12	8	30	15	8

3. Construct histogram from the following:

Midpoints	5	15	25	35	45	55
Frequencies	6	12	23	30	16	8

- 4. Prepare a blank table to show
 - 1] Year : 2004, 2005
 - 2] Faculty : Arts, Science, Commerce
 - 3] Gender : Male, Female



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Items of Expenditure	Amount spent
Food	40
Clothing	20
Fuel and lighting	50
House Rent	70
Miscellaneous	20

6 marks questions :

1. Construct less than and more than ogive :

X	20-40	40-60	60-80	80-100
f	3	7	11	9

2. Draw less than and more than ogive :

Profits	10-20	20-30	30-40	40-50	50-60	60-70
No. of	4	7	10	20	17	2
companies						

3. Make histogram and frequency polygon from :

Class	0-20	20-40	40-60	60-80	80-100
Frequency	10	4	6	14	16

- 4. Distinguish between frequency polygon and frequency curve through an example.
- 5. Discuss the difference between simple table and complex table. Use example.

C)

Chapter 5: Measures of Central Tendency

Important Term and Concepts:

1. <u>Average:</u> It is a value which is typical or representative of a set of data. Averages are also called Measures of Central Tendency.

2. <u>Functions of Average:</u>

- i] Presents complex data in a simple form.
- ii] Facilitates comparison.
- iii] Helps government to form policies.
- iv] Useful in Economic analysis.
- 3. <u>Essentials of a good Average:</u>
 - i. Simple to calculate.
 - ii. It should be easy to understand.
 - iii. Rigidly defined.
 - iv. Based on all items of observation.
 - v. Least affected by extreme values.