

Chapter 1 -Introduction

I) Answer the following questions in a sentence each – one mark

1. Who has given the Wealth definition?
Adam Smith
2. Name the book of Prof. Lionel Robbins
Nature and Significance of Economics
3. Why does the problem of choice arise?
The character of alternative uses of resources gives rise to the problem of choice
4. Give the meaning of consumption
The act of using goods and services to satisfy our wants is called consumption
5. Define statistics in its singular sense
Statistics in its singular sense refers to the "science of collection, presentation, analysis and interpretation of numerical data"

II) Answer the following in four sentences each – two marks

1. Name the 4 factors of production
Land, labor, capital and organization
2. Write any two forms of scarcity as you see in your daily life
Long queues at ration stop, petrol pumps etc
3. What do you study in exchange?
We study price, value, money, finance, trade and such other concepts

III) Answer the following questions in fifteen sentences each – five marks

1. Explain the importance of statistics in economics
 - a. Statistics helps an economist to present economic facts or data in a precise and definite form
 - b. It also helps to condense or reduce the bulk of the data
 - c. It helps in studying the relationship between different economic factors, for example relationship between price of a commodity and its demand
 - d. Statistics facilitates forecasting or predicting future
 - e. Statistics helps in formulating economic policies
 - f. Impact of government policies in solving economic problems can be evaluated with the help of statistical data

Chapter 2: Collection and organization of data

I) Answer the following questions in a sentence each – one mark

1. What is the purpose of data collection?
The purpose of data collection is to provide information regarding a specific topic or a problem
2. What are economic variables?

3. Give the meaning of Primary Data.
It is the data, which is collected by the investigator by inquiry or investigation
4. What do you mean by personal interview?
It is a method of data collection in which investigator collects the data personally by face-to-face contact with the respondents.
5. Expand NSSO.
National Sample Survey Office
6. Give the meaning of raw data
Unclassified data is called raw data
7. What do you mean by quantitative classification?
When data is classified based on quantitative characteristics like weight, height, income, age etc. it is called as quantitative classification
8. Give the formula for calculation of a range.
 $\text{Range} = L - S$ (Largest number – smallest number)
9. What do you mean by a class limit?
Class limits are the two ends of a class
10. Give the meaning of frequency array
The classification of data for discrete variable is called frequency array

II) Answer the following in four sentences each – two marks

1. Name the 2 types of data collection
Primary data and secondary data
2. Write any 2 methods of collecting primary data
Personal interview and mailing questionnaire
3. Distinguish between census and sample survey
 - a. Census - If data is collected from each and every unit of the universe
Sample survey – Data are collected from the sample taken from the universe
 - b. Census – Expensive method in terms of time, money and work force
Sample survey – Less expensive in terms of time, money and work force
 - c. Census – Cannot be carried out very often
Sample survey – can be carried out very often
 - d. Census – Results are very accurate and reliable
Sample survey – results may be accurate and reliable
4. What are published sources of secondary data?
 - a. International publications
 - b. Government publications
 - c. Reports of commissions and committees
 - d. Semi Government publications
 - e. Newspapers, periodicals etc
5. Why are sample surveys preferred most?
Sample surveys are most advantageous because they provide reliable and accurate information at lower cost and in shorter time

6. Name the divisions of CSO
Industrial Statistics Wing, Manpower Research Division, National Income Division, Population Division etc
7. What do you mean by Spatial Classification?
Classification of data based on geographical location such as countries, states, cities, districts etc
8. What are the types of variables? Explain
Variables are of 2 types: continuous and discrete.
Continuous variables can take any numeric values like integers, fractions etc
Discrete variables can only be integers
9. Give the formula to calculate class midpoint
$$\text{Class midpoint} = (\text{upper class limit} + \text{lower class limit}) / 2$$

III) Answer the following questions in fifteen sentences each – five marks

1. Distinguish between personal interview and telephone interview
2. How do you determine the class limit? Explain the methods of determining class limits.
3. Explain the method of finding class frequency by telemarking.

IV) Practical questions: Features of questionnaire

Chapter 3: Presentation of data

I) Answer the following questions in a sentence each – one mark

1. What do you mean by textual presentation of data?
In this method of data presentation data are described within the text
2. What is source note?
It is a brief note indicating the source of information
3. What is a table?
When statistical data are put together systematically in form of rows and columns it is called table
4. What do you mean by bar diagram?
They are the most common types of diagrams used in the presentation of data where the length or height of data

II) Answer the following in four sentences each – two mark

1. Give the meaning of Temporal Classification
When data is grouped according to time such as hours, weeks, months, years for example classifying the population of India in terms of years
2. What is qualitative classification?
Classification of data done on basis of attributes such as social status, physical status, nationality etc
3. What are the components of a table?
Table number, title, head note, captions, stubs, body of the table, source note and foot note.
4. What are the different types of bar diagrams?
Simple bar diagram, sub-divided bar diagram, bilateral bar diagram, multiple bar diagram and percentage bar diagram.

III) Answer the following questions in fifteen sentences each – five marks

1. What are the methods to classify the data?
The classification of data is done in 4 ways
 - a. Qualitative classification: Here classification of data is done on basis of attribute such as social status, physical status, nationality, region etc
For example
Distribution of employment in India (in percentage)

Sex	Self employed	Regular workers	Casual wage labourers
Male	51	18	31
Female	55	08	37

- b. Quantitative classification: Here classification is done based on quantitative characteristics like weight, height, income, marks etc
For example
Distribution of students on the basis of weight

Weight in KG	Number of students
25 – 35	05
35 – 45	25
45 – 55	12
55 - 65	08

- c. Temporal or chronological classification: Here data is classified on basis of time like hours, days, weeks, months, years etc.
For example
Density of population in India

Census year	1991	2001	2011
Density	267	324	382

- d. Spatial classification: This classification is done on the basis of place like village, town, district, state, country etc.

For example

Number of mobile users per thousand people

Country	Number of mobile users
A	642
B	592
C	380

2. What are parts of a table? Explain.

A good table should have the following parts.

- Table number: An appropriate table number should be assigned to a table and written on the top of the table.
- Title: It is usually written on top of the table, below the table number and explains the nature of data.
- Head note: Below the title on the right side there must be head note if any (for example, Rs in crores)
- Captions or column headings: Captions are the headings for vertical columns.
- Stubs or row headings: Stubs are headings for horizontal rows
- Body of a table: It is the main component of the table, which contains numerical information
- Source note: It is usually written at the bottom of the table and indicates the source of information presented in the table
- Foot note: It explains content of the table which cannot be understood by the reader from the title and headings.

3. Draw the format of a table :

Draw the table and label its parts.

Chapter 4: Measure of central tendency

- I) Answer the following questions in a sentence each – one mark

- What do you mean by measure of central tendency?
It is a method of summarizing the data in the form of a representative value.
- Define Arithmetic Mean
It is a value obtained by adding together the values of all the items and this sum is divided by the total number of items
- Define Median
It is the positional value of the variable, which divides the distribution into 2 equal parts
- Define mode
It is the most frequently observed data value

II) Answer the following in four sentences each – two mark

1. Find Arithmetic Mean: 10, 7, 13, 20, 15
Arithmetic mean = $(10 + 7 + 13 + 20 + 15) / 5 = 13$
2. Name the different type of averages
Mean, median, mode
3. Find the mode: 2, 6, 5, 4, 2, 1, 0, 2, 3, 3
Mode = 2

III) Answer the following questions in fifteen sentences each – five marks
Problems on the calculation of mean, median, mode

Chapter 5: Index Numbers.

I) Answer the following questions in a sentence each – one mark

1. Write the formula of price relative.

$$P = P_1/P_0 \times 100$$

2. Write the meaning of price relative
Price relative is the price in the current year expressed as percentage of prices in the base year
3. Write the formula of Consumer Price Index
 $CPI = \sum WP / \sum W$

II) Answer the following in four sentences each – two mark

1. What is the base period in construction of index number?
100
2. What is SENSEX?
SENSEX is an index of 30 well established and financially sound companies listed on Bombay Stock Exchange (BSE)
3. How many company shares are included in calculating SENSEX?
30

III) Answer the following questions in fifteen sentences each – five marks

1. Explain the concept on index numbers.
Index number is a specialized average designed to measure the changes in a variable with respect to time. This statistical device is used to measure the changes in the quantities such as prices, wages, cost, sales, etc. The year with which the current year is compared is called

base year and its value is taken as 100. So, index number compares economic variables of a particular group at two different periods.

2. Explain the importance of index numbers.

Index numbers helps in the following ways:

- a) They indicate changes in the national and international economic environment
- b) They are used to compare changes in one or more variables from period to period
- c) They are used to compare changes in one or more variables from place to place.
- d) They are useful in forecasting future economic activities and economic fluctuations
- e) They serve as guide lines in forming and evaluating economic policies like taxation policy, price policy, etc.

3. What is Consumer Price Index (CPI)? Explain its uses.

CPI is a macro-economic indicator which is designed to measure changes over a period of time, in the level of retail prices of selected goods and services.

Its uses are :

- a) It measures the overall changes in the prices of fixed basket of goods and services bought by a typical consumer related to price of the same basket in the base year.
- b) It helps to estimate the real cost of living
- c) It is used to adjust wages to the effects of inflation.