Statistical Description of Data

&

Sampling.

Questions -

What is the title of the book written by Kautilya where statistical records are mentioned?

A. Ain-i-Akbari → Abu Fazl

B. Artha shastra

C. Mahabharata

D. Rigveda

Questions -

Which of the following statements is false?

(a) Statistics is derived from the Latin word 'Status'

(b) Statistics is derived from the Italian word 'Statista'

(c) Statistics is derived from the German word 'Statistik'

(d) Statistics is derived from the french word 'Statistics'

Questions -

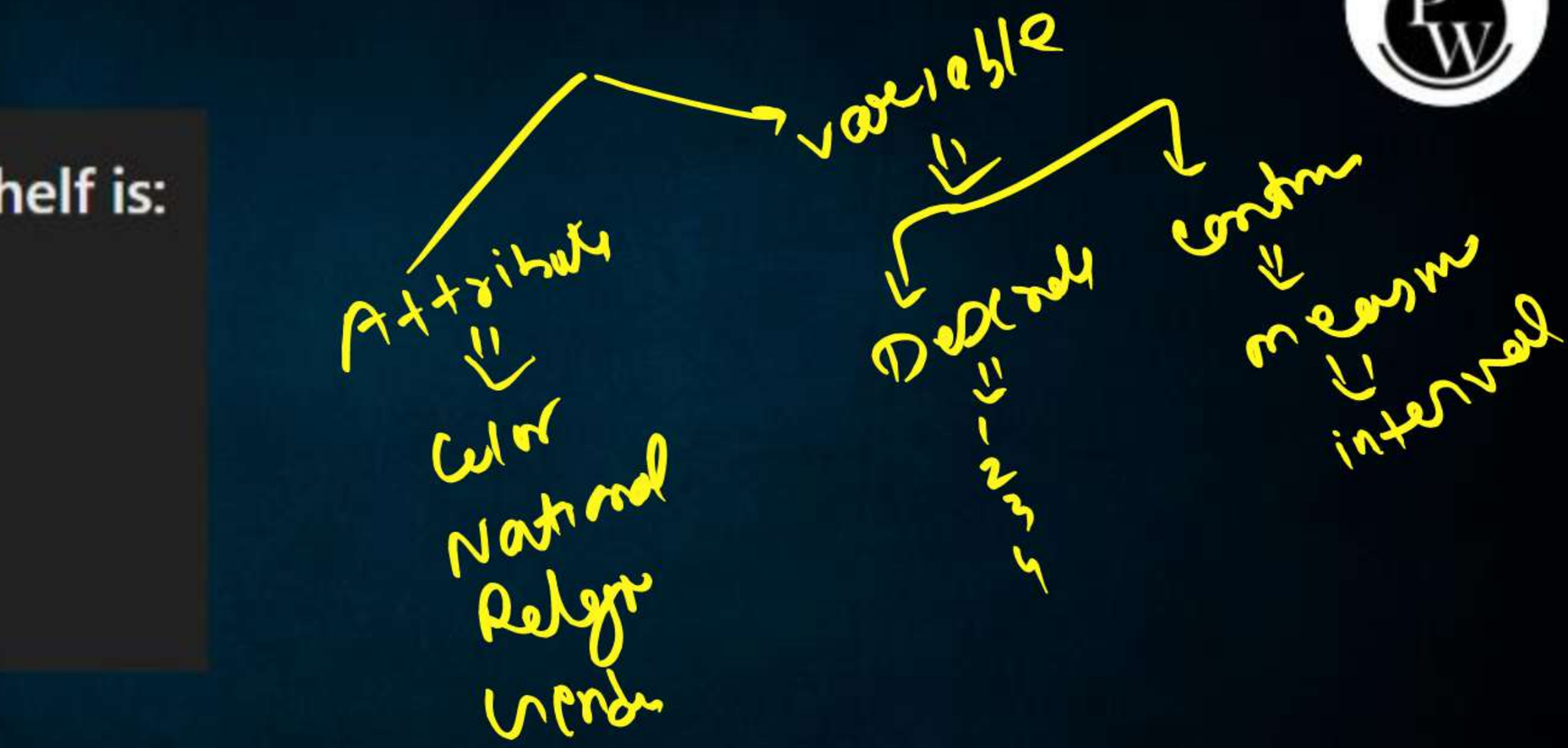
Number of books on a shelf is:

(a) Attribute

(b) Discrete variable

(c) Continuous variable

(d) Variable



Questions -

Number of students in a college is an example of

(A) An attribute

(B) A discrete variable

(C) A continuous variable

(D) A constant

Questions -

Profits made by XYZ Bank, which is a blue-chip company, in different years refer to:

(a) An attribute

(b) A discrete variable

(c) A continuous variable

(d) None of these

Questions - When statistics is used as a singular noun, it is defined as:

A. Historical records of a state

B. A collection of numerical facts

C. The scientific method for collecting, analysing, and presenting data

D. Qualitative and quantitative data

Questions -

Which branch of Economics interacts with statistics in a very positive way to conduct socio-economic surveys?

A. Microeconomics

B. Business Management

C. Econometrics

D. Macroeconomics

Questions - A fundamental limitation of statistics is that it deals with:

A. Inaccurate projections

B. Aggregates

C. Only qualitative data

D. Individual observations

Questions -

The marital status of employees in a company (Single, Married, Divorced) is:

(a) An attribute
(b) A discrete variable
(c) A continuous variable
(d) None of these

Questions -

The primary data are collected by

(a) Interview method

(b) Observation method

(c) Questionnaire method

(d) All these.

Questions -

The quickest method to collect primary data is

(a) Personal interview

(b) Indirect interview

(c) Telephone interview

(d) By observation.

Questions -

The best method to collect data, in case of a natural calamity, is

(a) Personal interview

(b) Indirect interview

(c) Questionnaire method

(d) Direct observation method.

Questions - In the case of a rail accident, where survivors may not be in a position to talk, which method is appropriate?

A. Mailed Questionnaire

B. Indirect Interview

C. Observation

D. Personal Interview

Questions -

What is a major disadvantage of the Mailed Questionnaire method?

(a) It is time-consuming.
(b) It is expensive.
(c) High rate of non-responses.
(d) Limited to small geographical areas.

Questions -

Which of the following is an example of secondary data?

(a) Data collected through an experiment. → P

(b) Data from census reports. → S

(c) Data obtained through personal interviews. → P

(d) Data collected using questionnaires. → P

Questions -

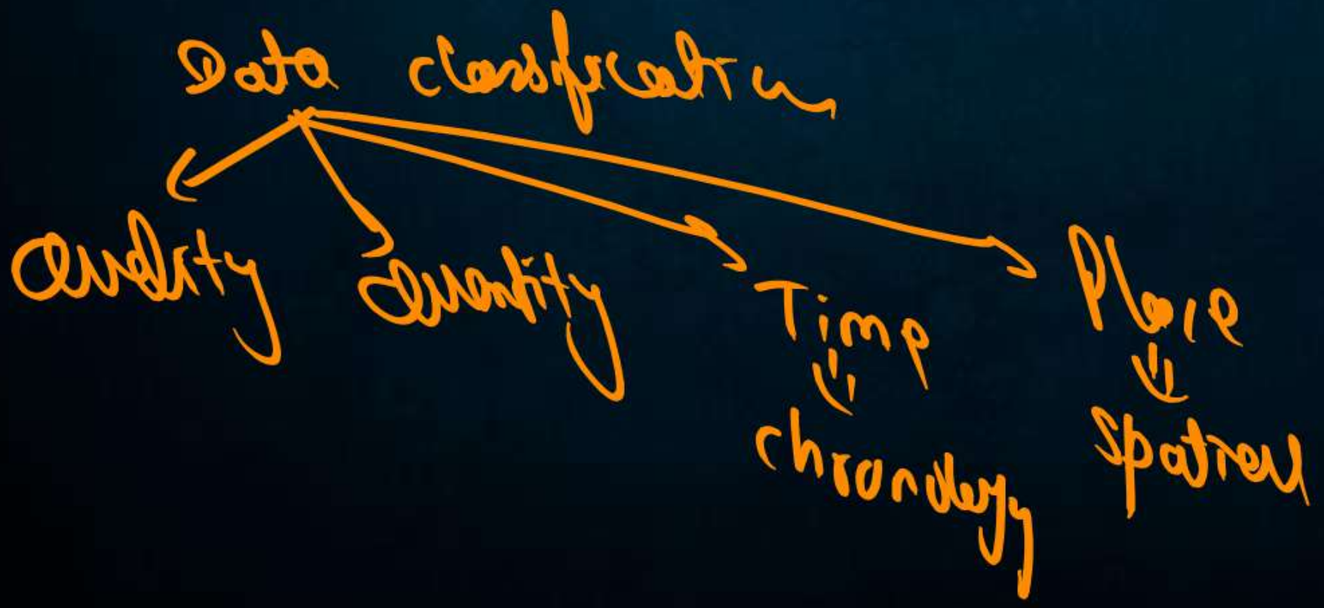
Classification of data based on time is called:

(a) Qualitative classification

(b) Quantitative classification

(c) Chronological classification

(d) Geographical classification



Questions -

A classification system that is adaptable to new data or categories is considered:

(a) Stable
(b) Exhaustive
(c) Flexible
(d) Clear

Good classification

→ M. Exclusive → no overlapping
→ M. Exhaustive → Includes every item
→ Flexible → changes adapt
→ rundistant → no changes.
→ Homogenous →
→ clear

Questions - The process of verifying whether the data are internally consistent is known as:

A. Scrutiny of data

B. Classification of data

C. Collection of data

D. Presentation of data

Questions -

If data are arranged according to different states in India, it is called:

A. Quantitative classification

B. Chronological classification

C. Qualitative classification

D. Geographical classification

Questions - Which of the following belongs to the 'Non-frequency' group of data?

A. Quantitative data

B. Time series data

C. Qualitative data

D. Attribute data

Chronological
Geographical

Data may be further classified as *frequency data* and *non-frequency data*. The qualitative as well as quantitative data belong to the frequency group whereas time series data and geographical data belong to the non-frequency group.

Frequency Data
=
Qualitative
&
Quantitative.

Non frequency
=
Chronological
Geographical.

Questions -

The most attractive method of data presentation is

(a) Tabular (b) Textual

(c) Diagrammatic (d) (a) or (b).

Questions -

The best method of presentation of data is

(a) Textual

(b) Tabular

(c) Diagrammatic

(d) (b) and (c).

Questions -

'Stub' of a table is the — Row Head

(a) Left part of the table describing the columns

(b) Right part of the table describing the columns

(c) Right part of the table describing the rows

(d) Left part of the table describing the rows.

Total parts of table

→ Box Head
→ Caption
→ Stubs
→ Body
→ Footnote
5 Parts

Todo

→ Title
→ Box Head || Captions. || Column

→ Stubs ⇒ Row Head
→ Body ⇒ Numerical.
→ Caption (footnote)

Questions -

The entire upper part of a table is known as

(a) Caption

(b) Stub

(c) Box head

(d) Body.

Questions - The main part of a statistical table that contains the numerical figures is called the:

A. Stub

B. Caption

C. Body

D. Box-head

Questions - Which chart is most suitable for representing two or more related time series data expressed in the same unit?

A. Multiple line chart

B. Logarithmic chart

C. Simple line chart

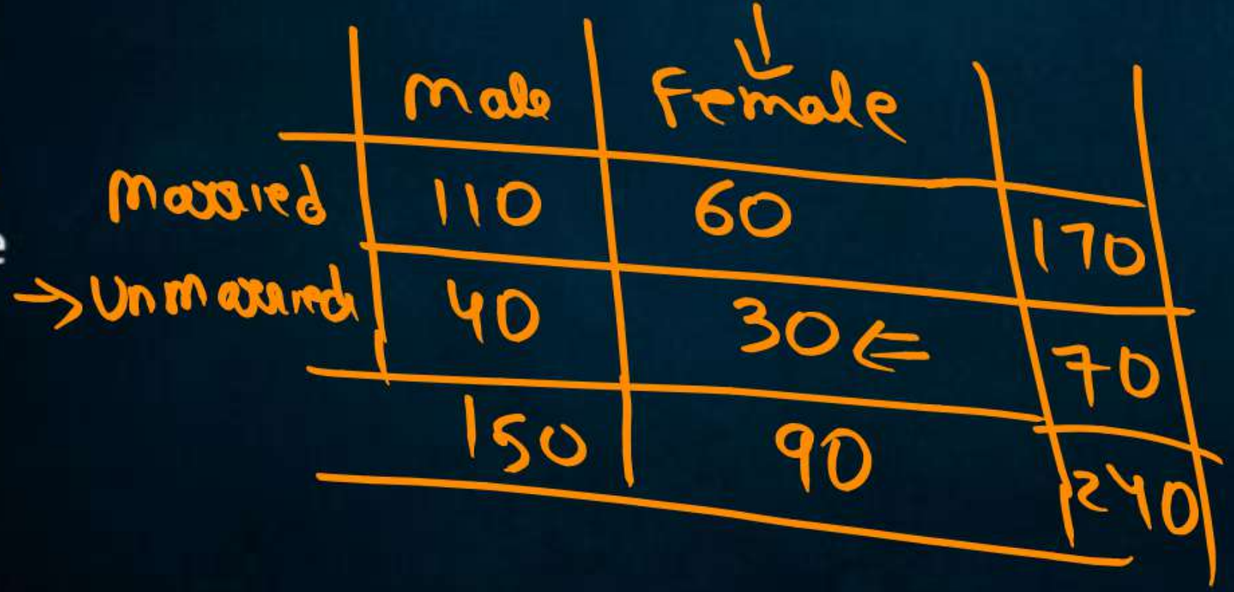
D. Pie chart

Line Diagram
(1)
use for time series

Questions -

There were **240 employees** in an office, out of which **170 were married**. Total **male employees were 150**, out of which **110 were married**. What was the number of **female unmarried employees**?

(a) 40
(b) 50
(c) 30
(d) None



Questions -

Mode can be obtained from _____

(a) Frequency polygon

(b) Histogram

(c) Ogive

(d) All of the above

Questions -

What type of data is most appropriate for representing using a Pie chart?

Options:

(A) Continuous data

(B) Categorical data

(C) Ordinal data

(D) Interval data

Questions -

If the class intervals of certain data are 10-14, 15-19, 20-24, then the first class boundaries is:

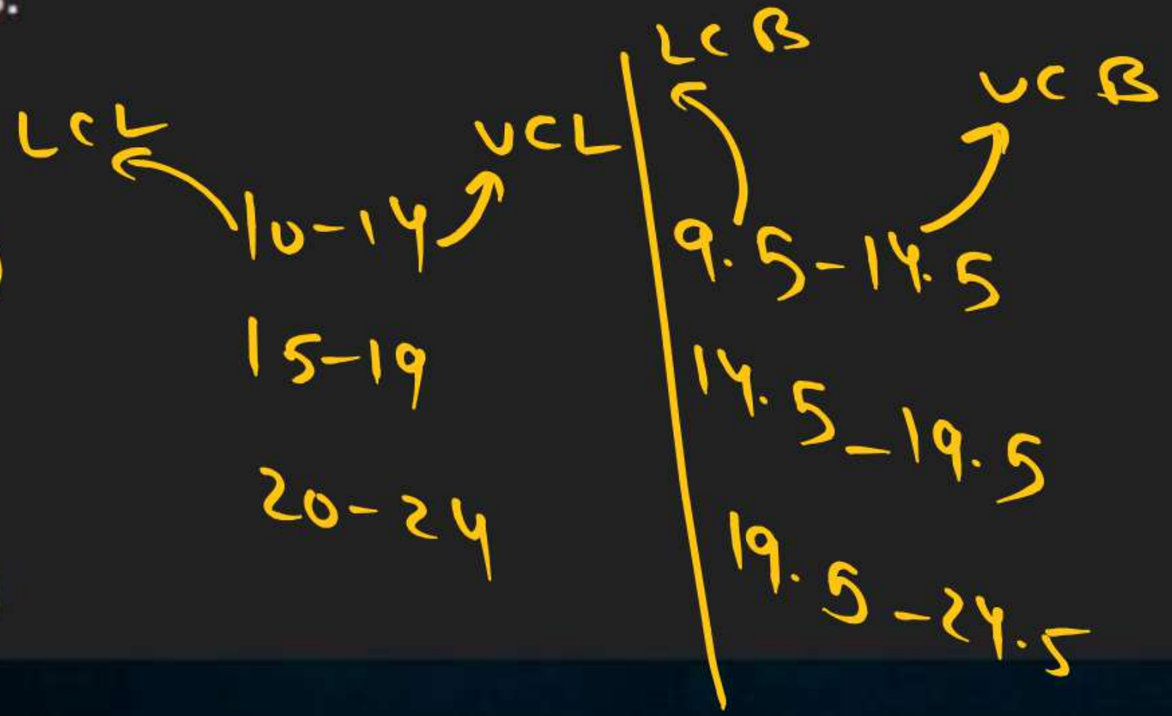
Options:

(A) 9.5-14.5

(B) 10-14

(C) 10-15

(D) 10.5-15.5



Questions -

The graphical representation of a cumulative frequency distribution is called :

(a) Histogram
(b) Ogive
(c) Both
(d) None

Less than
more than

ogive
=
→ median
→ Quartiles

Questions -

Which of the following is not a two-dimensional figure ?

(a) Line Diagram = 1

(b) Pie Diagram = 2

(c) Square Diagram = 2

(d) Rectangle Diagram = 2

Line Diagram
Bar Diagram
Ratio chart
Frequency polygon
=
1 Dimension

Histogram
Pie chart
Rectangle
=
2D

Cube
Cuboid
=
3D

Questions -

From the following data, find the number of class intervals if class length is given as 5:

73, 72, 65, 41, 54, 80, 50, 46, 49, 53.

Smallest → 41

Largest → 80

Options:

(a) 6

(b) 5

(c) 7

(d) 8

41-46 .
46-51 .
-56 .
-61 .
-66 .
-71 .
-76 .
-81 .

$$\text{Class length} = \frac{\text{Range}}{\text{No. of class intervals}}$$

$$= \frac{80-41}{5}$$

$$= \frac{39}{5} = 7.8$$

Questions -

Median of a distribution can be obtained from ;

(a) Histogram

(b) Frequency Polygon

(c) Less than type Ogives

(d) None of these

Questions -

The distribution of profits of a company follows

(a) J - shaped frequency curve

(b) U - shaped frequency curve

(c) Bell - shaped frequency curve

(d) Any of these

Questions -

The most appropriate diagram to represent the data relating to the monthly expenditure on different items by a family is:

Options:

(a) Histogram

(b) Pie-diagram → categories

(c) Frequency polygon

(d) Line graph

Questions -

The Ogive can be used for making

(A) short term projection

(B) medium term projection

(C) long term projection

(D) group frequency distribution

Questions -

In pie chart, if a category represents 25% of the total data, what will be the angle of corresponding sector ?

(A) 90°

(B) 45°

(C) 60°

(D) 75°

$360^\circ \times 25\%$

$= 90^\circ$

Questions - To represent the distribution of a variable into various components and show their relation to the whole, we use a:

A. Frequency polygon

B. Histogram

C. Pie chart

D. Line diagram

Questions -

A table has

(a) four (b) two (c) five (d) none parts.

Questions -

An Ogive can be prepared in _____ different ways.

(a) 2 (b) 3 (c) 4 (d) none

less & more

Questions -

Relative frequency for a particular class

(a) Lies between 0 and 1

(b) Lies between 0 and 1, both inclusive

(c) Lies between –1 and 0

(d) Lies between –1 to 1.

$$\text{frequency Density} = \frac{\text{frequency of class}}{\text{class length}}$$

$$\text{Relative frequency} = \frac{\text{frequency of class}}{\text{Total frequency}} < 1$$

Questions -

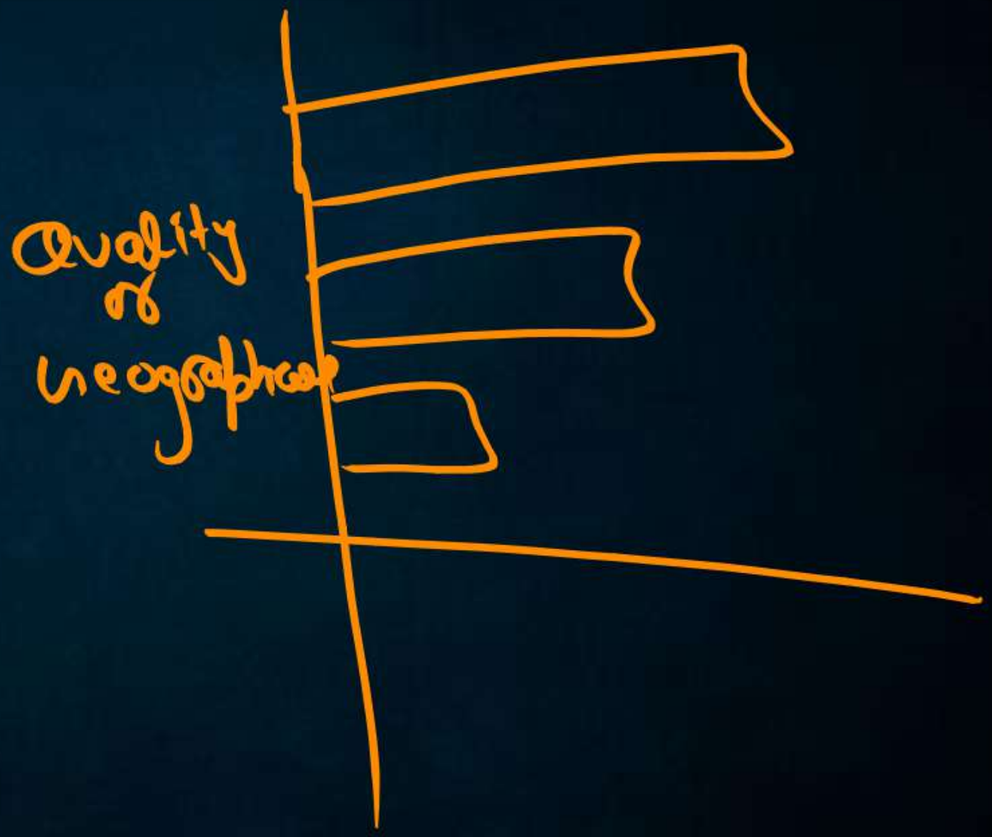
Vertical bar diagram is applicable when

(a) The data are qualitative

(b) The data are quantitative

(c) When the data vary over time

(d) (b) or (c).



Time or Quantitative.

Questions -

Horizontal bar diagram is used for

(a) Qualitative data

(b) Data varying over time

(c) Data varying over space → Geography

(d) (a) or (c).

Questions -

For manifold classification, this method of presentation of data cannot be recommended :

(A) Textual presentation

(B) Tabular presentation

(C) Bar Diagram

(D) Pie Chart

Nationality
||
Gender
||
Age

Questions -

The most commonly used distribution is _____ in which the maximum frequency is at the central part and the frequency decreases when one moves away from the central part on either the left side or the right side.

(A) Bell-shaped curve

(B) U-shaped curve

(C) J-shaped curve

(D) Mixed curve

Questions -

A bar chart can be drawn for the data having numbers on

(A) Students of various disciplines

(B) Persons of different age groups → continuous → Histogram

(C) Sales of a commodity over a year

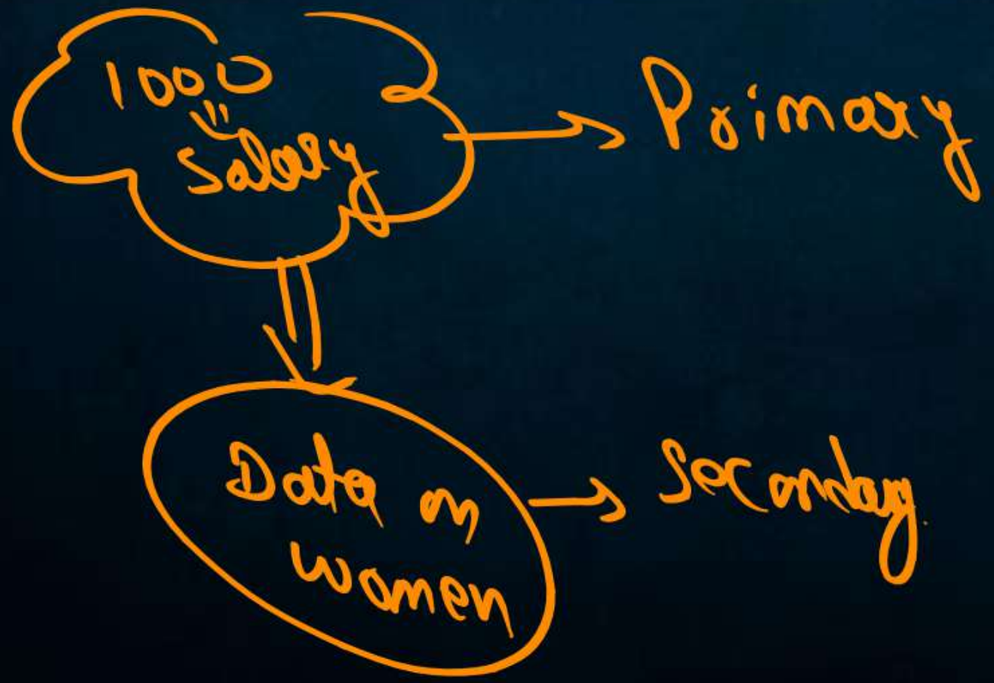
(D) Temperature recorded during a month. →

Time Series → Line Diagram

Questions - Sep. 2025

An investigator collects information on salaries received by 1000 persons. From this collection, the data on women are extracted. Now the data is called _____ data.

(A) Primary
(B) Secondary
(C) Census
(D) Ordinal



Questions -

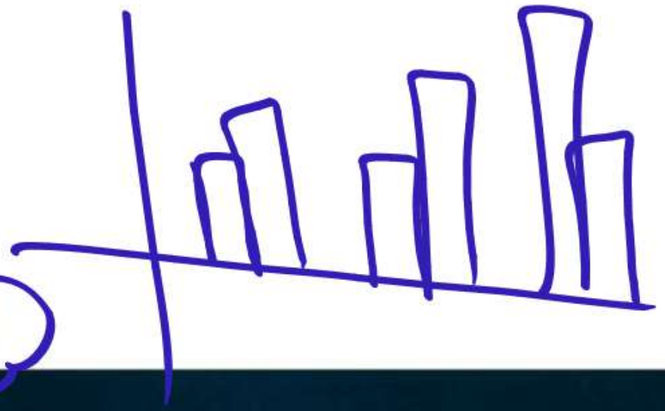
Two sales-persons present their numbers of sales per week for a month. An appropriate diagram that can be drawn for this data is _____

(A) Histogram

(B) Pie chart

(C) Ogive

(D) Adjacent bar chart



Questions -

Marks (Class Interval)	Frequency
0 – 10	20
10 – 20	30
20 – 40	40
40 – 60	20

The **frequency density** of the class **20–40** is:

(a) 1

(b) 2

(c) 3

(d) 4

$\frac{40}{20} = 2$

Questions -

The frequency density of the class **0–5** is **6**.

Find the **frequency**.

a) 1.2

b) 25

c) 30

d) none

$$f.D = \frac{f}{\text{length}}$$

$$6 = \frac{f}{5}$$

$$30 = f$$

Questions -

Marks (Class Interval)	Frequency
0 – 10	10
10 – 20	20
20 – 30	30
30 – 40	40
	100

R.F.
10/100
20/100
30/100 = 0.30

The **relative frequency** of the class **20–30** is:

(a) 0.10

(b) 0.20

(c) 0.30

(d) 0.40

Questions - When data are classified according to a continuous variable, the resulting table is called a:

A. Simple frequency distribution

B. Textual presentation

C. Grouped frequency distribution

D. Chronological series

Individual Discrete } Ungrouped

Continuous } Grouped

Questions - For a class interval, the 'Mid-point' is calculated by dividing the sum of class limits by:

A. The class width

B. 100

C. The total frequency

D. 2

	x_i
0-10	$\frac{0+10}{2}$
10-20	$\frac{10+20}{2}$

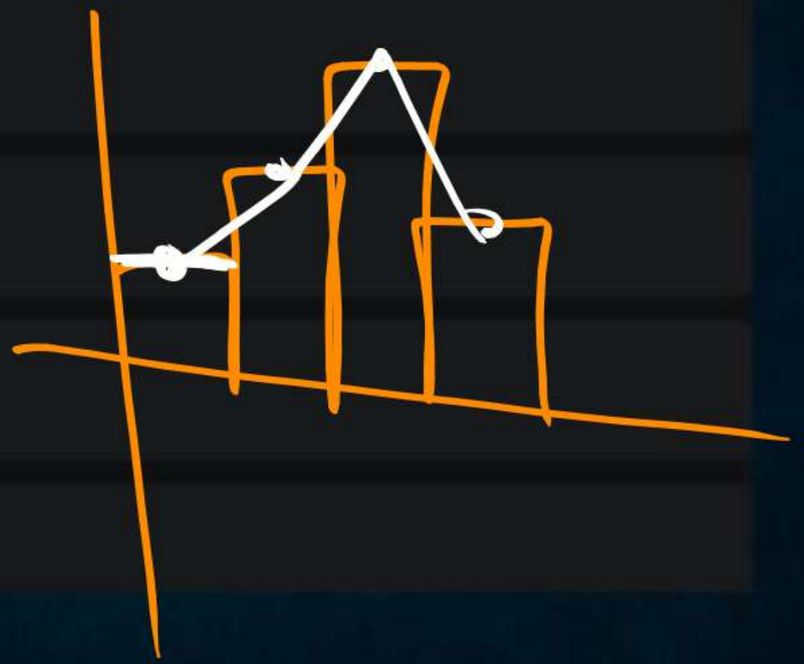
Questions - A frequency polygon is constructed by plotting frequencies against the:

A. Lower class boundaries

B. Upper class limits

C. Mid-points of the class intervals

D. Cumulative frequencies



Questions - A frequency curve for which the total area is taken to be unity is a limiting form of:

A. A bar diagram

B. A histogram or frequency polygon

C. Textual presentation

D. A pie chart

limi

Frequency curve
is
limiting value of frequency polygon

Questions - Which type of frequency curve is characterized by the frequency being minimum near the center and maximum at the extremities?

A. J-shaped curve

B. Mixed curve

C. U-shaped curve

D. Bell-shaped curve

Questions - The distribution of heights, weights, and exam marks usually follows which type of curve?

A. J-shaped curve

B. U-shaped curve

C. Bell-shaped curve

D. Circular curve

Questions - In 16th century India, agricultural statistics were recorded in 'Ain-i-Akbari' by:

A. Abu Fazl

B. Chandragupta

C. The Pharaoh

D. Kautilya

Questions - The first census in history is mentioned to have been conducted in:

A. Germany as 'Statistik'

B. Egypt by the Pharaoh

C. India by Kautilya

D. England by the Royal Society

Questions - A researcher uses data on the number of road accidents from a local police station's annual report. This data is:

A. Primary data

B. Secondary data

C. Attribute data

D. Geographical data

Questions - Which method of data collection is most suitable when respondents are spread over a very large area and are educated?

A. Indirect Interview

B. Personal Interview

C. Mailed Questionnaire

D. Observation

Sampling

Questions -

The study of an unknown population based on a proper representative part is known as:

(a) Complete Enumeration

(b) Census

(c) Sample Survey

(d) Statistical Inference

Questions -

Complete enumeration is also defined as:

(a) Sample Survey

(b) Pilot Survey

(c) Census

(d) Case Study

Questions -

Complete enumeration is preferred when:

(a) Population is infinite

(b) Cost is high

(c) One defect can cause serious consequences

(d) Time is limited

Questions -

The law of statistical regularity states that:

(a) Every sample represents population

(b) Small samples are reliable

(c) Large random samples represent population on an average

(d) Sampling eliminates errors

Questions -

According to the principle of inertia of large numbers, results become more reliable when:

(a) Sample size decreases

(b) Sample size increases

(c) Population becomes finite

(d) Cost increases

Questions -

Which principle ensures maximum efficiency at minimum cost?

(a) Validity

(b) Optimization

(c) Statistical regularity

(d) Inertia

Questions -

Which principle states that a sampling design is valid only if it allows for valid estimates of population parameters?

(a) Principle of Inertia
(b) Principle of Validity
(c) Law of Statistical Regularity
(d) Principle of Optimization

Questions -

A sampling design is said to be valid only when:

(a) Sample size is large

(b) Cost is minimum

(c) Probability sampling is used

(d) Population is finite

Questions -

Replacing a selected sampling unit due to convenience leads to:

(a) Precision

(b) Sampling bias

(c) Randomization

(d) Stratification

Questions -

Population of heads obtained by infinite coin tosses is:

(a) Existent

(b) Finite

(c) Hypothetical

(d) Stratified

Questions -

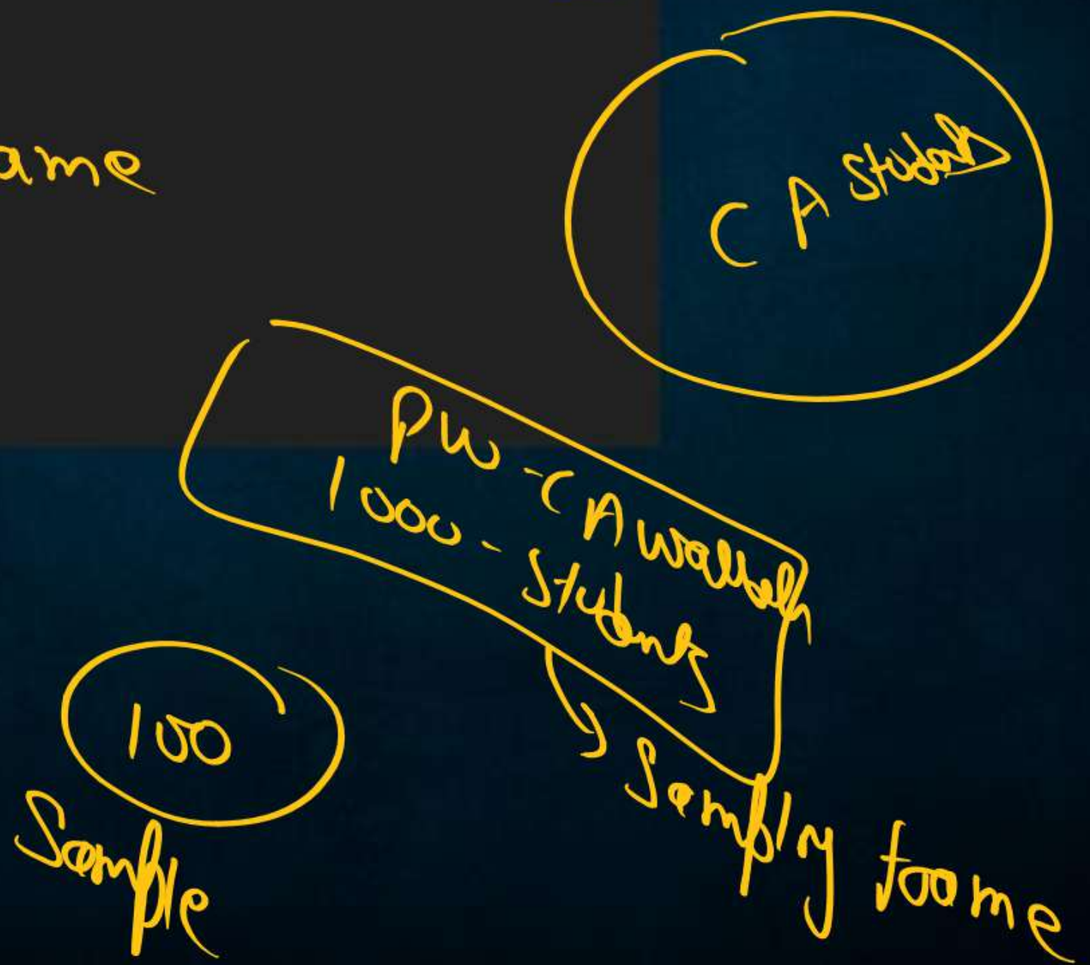
A complete list of all sampling units is known as:

(a) Sample

(b) Frame => sampling frame

(c) Parameter

(d) Statistic



Questions -

A statistic is defined as:

(a) Function of population units → Parameter.

(b) Characteristic of population

(c) Function of sample observations

(d) Census result

Questions -

Which of the following is a **population characteristic**?

(a) Sample mean

(b) Sample variance

(c) Parameter

(d) Statistic

Questions -

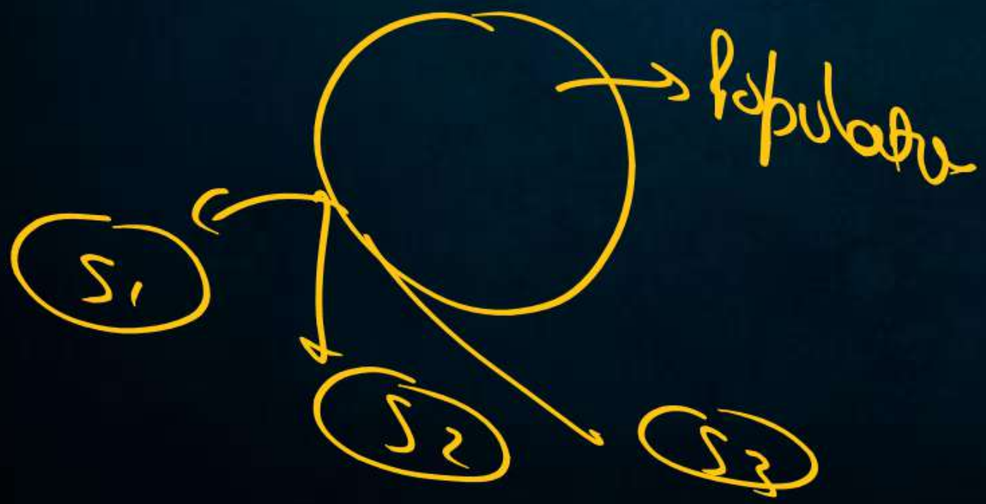
Sampling fluctuation refers to:

(a) Change in population size

(b) Difference in parameters

(c) Variation in statistic values from sample to sample

(d) Measurement error



Questions -

Probability Distribution

Sampling distribution is the:

(a) Distribution of population

(b) Distribution of samples

(c) Probability distribution of a statistic

(d) Distribution of observations

Questions -

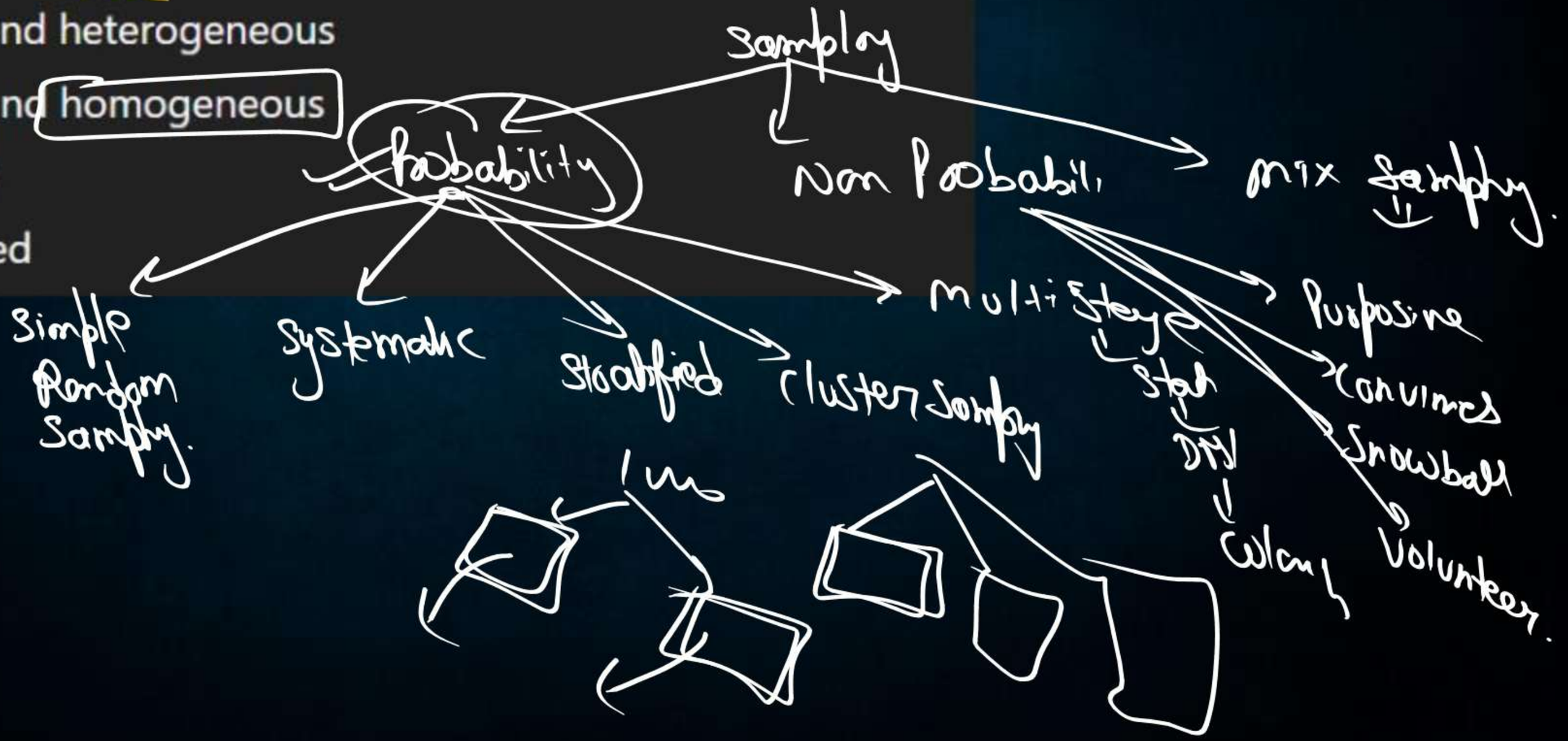
Simple random sampling is most suitable when population is:

(a) Large and heterogeneous

(b) Small and homogeneous

(c) Infinite

(d) Stratified



Questions -

Which sampling method is free from sampler's bias?

(a) Purposive sampling → ~ P

(b) snowball sampling → ~ P

(c) Simple random sampling

(d) Judgment sampling → ~ P

Questions -

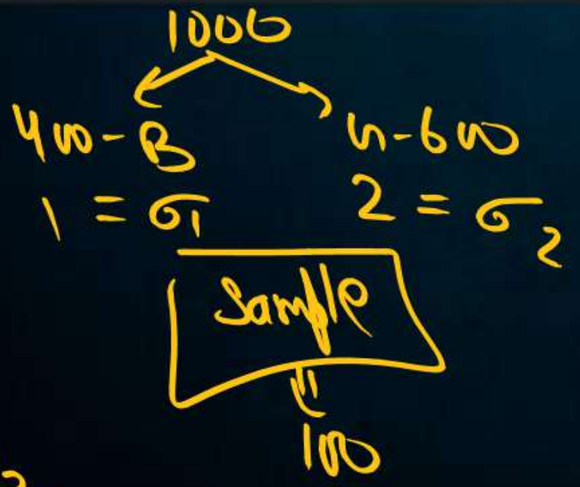
Bowley's allocation is based on:

(a) Population size only

(b) Population variance only

(c) Cost of strata

(d) Sample variance



400 : 1200
1 : 3

Bowley = 100 → B = 40, G = 60

Neyman ⇒ 100 → $B = 100 \times \frac{4w}{4w+12w} = 25$

$G = 100 \times \frac{12w}{4w+12w} = 75$

Questions -

Neyman's allocation considers:

(a) Only population size

(b) Only standard deviation

(c) Population size and SD

(d) Sample size only

Questions -

The reliability of a statistic varies as the _____ of the sample size.

(a) Square
(b) Cube root
(c) Square root
(d) Reciprocal

$$S.E = \frac{\sigma}{\sqrt{n}}$$

Questions -

Which sampling is partly probabilistic and partly non-probabilistic?

(a) Simple random → Prob

(b) Stratified → Prob.

(c) Systematic →

(d) Purposive → Non prob.

100 = N

n = 5

$\frac{100}{5} = 20$

1 - 20

↓

one number

4 → 24, 44, 64, 84

Questions -

Systematic sampling suffers badly when population has:

(a) Randomness

(b) Heterogeneity

(c) Periodicity

(d) Large size

Questions -

A population has standard deviation $\sigma = 10$.

A random sample of size $n = 25$ is drawn with replacement.

The standard error of sample mean is:

(a) 2

(b) 4

(c) 5

(d) 10

$\sigma = 10$

$n = 25$

$SE(\bar{x}) = \frac{\sigma}{\sqrt{n}}$ with Replacement

$= \frac{10}{\sqrt{25}} = \frac{10}{5} = 2$

$\sqrt{\frac{N-n}{N-1}}$ = FPC = finite population correction

$SE(\bar{x}) = \frac{\sigma}{\sqrt{n}}\sqrt{\frac{N-n}{N-1}}$ without Replacement

Questions -

If population standard deviation is **16** and sample size is **64**, then SE of mean is:

(a) 1

(b) 2

(c) 4

(d) 8

$\sigma = 16$

$n = 64$

$$SE(\bar{x}) = \frac{\sigma}{\sqrt{n}}$$

$$= \frac{16}{\sqrt{64}} = \frac{16}{8} = 2$$

Questions -

A population consists of **N = 100** units with **σ = 12**.
A sample of **n = 25** is taken **without replacement**.
Find the standard error.

(a) 2.40
(b) 2.14
(c) 2.08
(d) 1.82

$N = 100$

$\sigma = 12$

$n = 25$

$$SE(\bar{X}) = \frac{\sigma}{\sqrt{n}} \sqrt{\frac{N-n}{N-1}}$$

$$= \frac{12}{\sqrt{25}} \sqrt{\frac{100-25}{100-1}}$$

$$= \frac{12}{5} \times \sqrt{\frac{75}{99}}$$

$$= 2.08$$

Questions -

For the same population and sample size, the standard error is:

(a) Same in both cases

(b) Larger in WOR

(c) Smaller in WOR

(d) Zero in WR

$$\frac{\sigma}{\sqrt{n}} > \frac{\sigma}{\sqrt{n}}\sqrt{\frac{N-n}{N-1}}$$

Questions -

If sample size is increased from 25 to 100, then standard error becomes:

(a) Half

(b) Double ✗

(c) One-fourth

(d) Four times

$n = 25$

$SE_1 = \frac{\sigma}{\sqrt{n}}$

$= \frac{\sigma}{\sqrt{25}}$

$= \frac{\sigma}{5}$

$= \sigma\left(\frac{1}{5}\right)$

$= \sigma(0.20)$

$n = 100$

$SE_2 = \frac{\sigma}{\sqrt{100}}$

$= \frac{\sigma}{10}$

$= \sigma\left(\frac{1}{10}\right)$

$= \sigma(0.10)$

$\frac{SE_2}{SE_1} = \frac{0.10\,\sigma}{0.20\,\sigma}$

$\frac{SE_2}{SE_1} = \frac{1}{2}$

$SE_2 = \frac{1}{2} SE_1$

Questions -

A population has **5 units**. How many samples of size **3** can be drawn **without replacement**?

(a) 60

(b) 10

(c) 125

(d) 15

$N = 5$

$n = 3$

Total Sample W.O.R $= {}^{N}C_{n} = {}^{5}C_{3} = \frac{5!}{3!\,2!} = 10$

Questions -

A population consists of **3 members**. How many samples of size **2 with replacement** are possible?

(a) 6

(b) 9

(c) 3

(d) 12

$N = 3$

$n = 2$

total Sample WR $= (N)^n$

$= (3)^2$

$= 9$

Questions -

In a population, **60%** items are defective. A sample of **100** items is drawn with replacement.

Find SE of proportion.

(a) 0.0489

(b) 0.0412

(c) 0.0652

(d) 0.0241

$$P = \frac{60}{100} = 0.60$$

$$Q = 1 - P = 1 - 0.60 = 0.40$$

$$n = 100$$

$$SE(p)_{(WR)} = \sqrt{\frac{PQ}{n}} = \sqrt{\frac{0.6 \times 0.4}{100}} = 0.0489$$

$$SE(p)_{WOR} = \sqrt{\frac{PQ}{n}} \sqrt{\frac{N-n}{N-1}}$$

Questions -

Sampling can be described as a statistical procedure

(a) To infer about the unknown universe from a knowledge of any sample

(b) To infer about the known universe from a knowledge of a sample drawn from it

(c) To infer about the unknown universe from a knowledge of a random sample drawn from it

(d) Both (a) and (b)

Questions -

The Law of Statistical Regularity says that

(a) Sample drawn possesses population characteristics

(b) Large random sample possesses population characteristics

(c) Large random sample possesses population characteristics **on an average**

(d) Efficiency is attained at minimum cost

Questions -

A sample survey is prone to

(a) Sampling errors

(b) Non-sampling errors

(c) Either (a) or (b)

(d) Both (a) and (b)

Questions -

The population of roses in Salt Lake City is an example of

(a) Finite population

(b) Infinite population

(c) Hypothetical population

(d) Imaginary population

Questions -

Statistical decision about an unknown universe is taken on the basis of

(a) Sample observations
(b) A sampling frame
(c) Sample survey
(d) Complete enumeration

Sample mean
SD

Questions -

Simple Random Sampling

Random sampling implies

(a) Haphazard sampling

(b) Probability sampling

(c) Systematic sampling

(d) Equal probability for each unit

Questions -

A statistic is

(a) A function of sample observations

(b) A function of population units

(c) A population characteristic

(d) A part of population

Questions -

Sampling Fluctuations may be described as

(a) The variation in the values of a statistic

(b) The variation in the values of a sample

(c) The differences in the values of a parameter

(d) The variation in the values of observations.

Questions -

Standard error can be described as

(a) The error committed in sampling

(b) The error committed in sample survey

(c) The error committed in estimating a parameter

(d) Standard deviation of a statistic.

Questions -

A measure of precision obtained by sampling is given by

(a) Standard error

(b) Sampling fluctuation

(c) Sampling distribution

(d) Expectation.

Questions -

As the sample size increases, standard error

(a) Increases

(b) Decreases

(c) Remains constant

(d) Decreases proportionately.

Questions -

According to Neyman's allocation, in stratified sampling

(a) Sample size is proportional to the population size & S.D.

(b) Sample size is proportional to the sample SD

(c) Sample size is proportional to the sample variance

(d) Population size is proportional to the sample variance.

Questions -

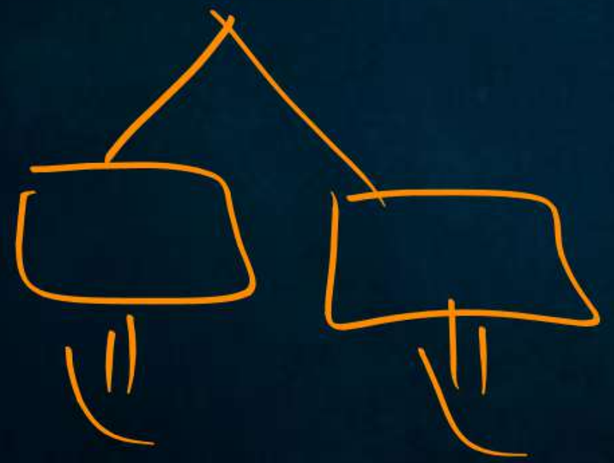
Which sampling provides separate estimates for population means for different segments and also an over all estimate?

(a) Multistage sampling

(b) Stratified sampling

(c) Simple random sampling

(d) Systematic sampling



Questions -

Which sampling adds flexibility to the sampling process?

(a) Simple random sampling
(b) Multistage sampling
(c) Stratified sampling
(d) Systematic sampling

Questions -

Which sampling is affected most if the sampling frame contains an undetected periodicity?

(a) Simple random sampling

(b) Stratified sampling

(c) Multistage sampling

(d) Systematic sampling

Questions -

Sampling method which belongs to the category of Mixed sampling is

(A) Systematic Sampling

(B) Simple Random Sampling

(C) Stratified Sampling

(D) Multi-stage Sampling

Questions -

Which of the followings is not a basic principle of sample survey ?

(A) Principle of Inertia

(B) Principle of Optimization

(C) Principle of Large Numbers

(D) Law of Statistical Regularity

Questions -

After a singing competition on a live TV show, the winner is selected according to the number of likes each candidate has received on a messaging app. This method of data collection is known as _____ sampling.

(A) Random

(B) Probabilistic

(C) Purposive

(D) Multi-Stage

Questions -

Which of the following statements about simple random sampling is NOT true ?

(A) In simple random sampling with replacement, each selected unit is replaced to the population before the next unit is drawn.

(B) Simple random sampling ensures that each unit in the population has an equal chance of being selected.

(C) Simple random sampling is highly effective when the population is very large and heterogeneous.

(D) In a simple random sampling without replacement, a unit is selected, it will never be selected again.

Questions -

Standard Error (SE) and square root of sample size are

(A) Directly proportional

(B) Equal

(C) Inversely proportional

(D) Not equal

$$SE = \frac{\sigma}{\sqrt{n}}$$

Questions -

Which sampling technique is most appropriate when a person wants to ensure that subgroups are proportionally represented ?

(A) Stratified Sampling

(B) Simple Random Sampling

(C) Multistage Sampling

(D) Systematic Sampling

Questions -

What is the purpose of stratified random sampling ?

(A) To divide the population into subgroups and then randomly sample from each subgroup.

(B) To ensure that every individual in the population has an equal chance of being selected.

(C) To select individuals based on their availability and convenience.

(D) To select a fixed percentage of the population without any specific criteria.

Questions -

FPC stands for:

(a) Fixed Population Constant

(b) Finite Population Correction

(c) Final Population Correction

(d) Fractional Population Coefficient

Questions -

Finite Population Correction factor is given by:

(a) $\sqrt{\frac{N-1}{N-n}}$

(b) $\sqrt{\frac{N-n}{N-1}}$

(c) $\frac{N-n}{N}$

(d) $\sqrt{\frac{n}{N}}$

$$\sqrt{\frac{N-n}{N-1}}$$

Questions -

FPC is used when sampling is:

(a) With replacement

(b) Without replacement

(c) Systematic

(d) Stratified