IMP MCQs Lecture 2

Chp13 Statistical Description of Data

CA. Pranav Popat

Schedule

Date	Day	Chapter to be Covered
05-Aug-25	Tue	Chp4 Math for Finance
07-Aug-25	Thu	Chp13 Statistical Description of Data
09-Aug-25	Sat	Chp14 Central Tendency & Dispersion
11-Aug-25	Mon	Chp17 Correlation and Regression
13-Aug-25	Wed	Chp12 Blood Relations and Chp10 Direction Test
15-Aug-25	Fri	Chp11 Seating Arrangements & Chp9 Number Series...
17-Aug-25	Sun	Chp1 Ratio Proportion Indices Logarithm
19-Aug-25	Tue	Chp18 Index Numbers and Chp6 Sequence and Series
21-Aug-25	Thu	Chp2 Equations & Chp3 Linear Inequalities
23-Aug-25	Sat	Chp5 Permutations & Combinations
25-Aug-25	Mon	Chp7 Set Relation Functions
27-Aug-25	Wed	Chp15 Probability and Chp16 Theoretical Distribution

24 Days Challenge

Telegram

@learnwithpranav

24 DAYS QA CHALLENGE

QA (Math, LR and Stats) **BY CA. PRANAV POPAT**

CA FOUNDATION SEP 2025

Day Numbe	Date	Day	Title	Video Link	PDF Link	Duration (Hours)
1	4-Aug-25	Mon	Revision of Chp4 Math for Finance (Self/ One Shot)	Play	PDF	3:02:00
2	5-Aug-25	Tue	IMP MCQs of Chp4 Math for Finance (Live on YT)	coming soon	coming soon	
3	6-Aug-25	Wed	Revision of Chp13 Statistical Description of Data (Self/ One Shot)	Play	PDF	3:06:00
4	7-Aug-25	Thu	IMP MCQS of Chp13 Statistical Description of Data (Live on YT)	coming soon	coming soon	
5	8-Aug-25	Fri	Revision of Chp14 Central Tendency & Dispersion (Self/ One Shot)	Play	PDF	3:02:00
6	9-Aug-25	Sat	IMP MCQs of Chp14 Central Tendency & Dispersion (Live on YT)	coming soon	coming soon	
7	10-Aug-25	Sun	Revision of Chp17 Correlation Regression (Self/ One Shot)	Play	PDF	2:43:58
8	11-Aug-25	Mon	IMP MCQs of Chp17 (Live on YT)	coming soon	coming soon	
9	12-Aug-25	Tue	Revision of Chp12 Blood Relations (Self/ One Shot)	Play	PDF	1:24:49
			Revision of Chp10 Direction Test (Self/ One Shot)	Play	PDF	1:01:11
10	13-Aug-25	Wed	IMP MCQs of Chp12 and Chp10 (Live on YT)	coming soon	coming soon	
11	14-Aug-25	Thu	Revision of Chp11 Seating Arrangements (Self/ One Shot)	Play	PDF	1:48:40

let’s get started.

PYQ May 2025

PYQ May 2025

(42) *Which of the following statements about simple random sampling is NOT true?*

a. *Simple random sampling ensures that each unit in the population has an equal chance of being selected* True

b. *In simple random sampling with replacement, each selected unit is replaced to the population before the next unit is drawn* True

c. ✓ *Simple random sampling is highly effective when the population is very large and heterogeneous* False

d. *In a simple random sampling without replacement, a unit is selected, it will never be selected again.*

PYQ May 2025

PYQ May 2025

(37) *Frequency density corresponding to a class interval for the continuous frequency distribution, is the ratio of*

a. *Class frequency to the total frequency*

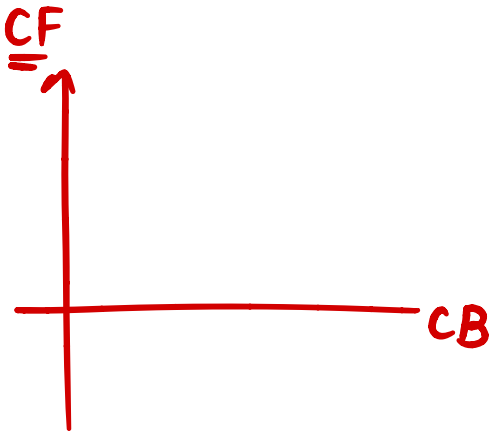
b. *Class frequency to the class length*

c. *Class length to the class frequency*

d. *Class frequency to cumulative frequency*

PYQ May 2025

PYQ May 2025			
(38)	The curve obtained by joining the points, whose X co-ordinates are the upper limits of the class intervals and Y co-ordinates are corresponding cumulative frequencies is called		
	a. Ogive	b. Histogram	
	c. Frequency Polygon	d. Frequency Curve	



PYQ May 2025

PYQ May 2025			
(40)	*The mode of continuous frequency distribution can be determined graphically from*		
	a. Histogram	*b. Frequency Polygon*	
	c. Ogive	*d. Frequency Curve*	

PYQ May 2025

PYQ May 2025			
(41)	*A population comprises 5 members. The number of possible samples of size 2 that can be drawn from it with replacement is*		
	a. 100	*b.* 15	
	c. 125	*d.* 25 ✓	

WR n^r

WOR ${}^nC_r$

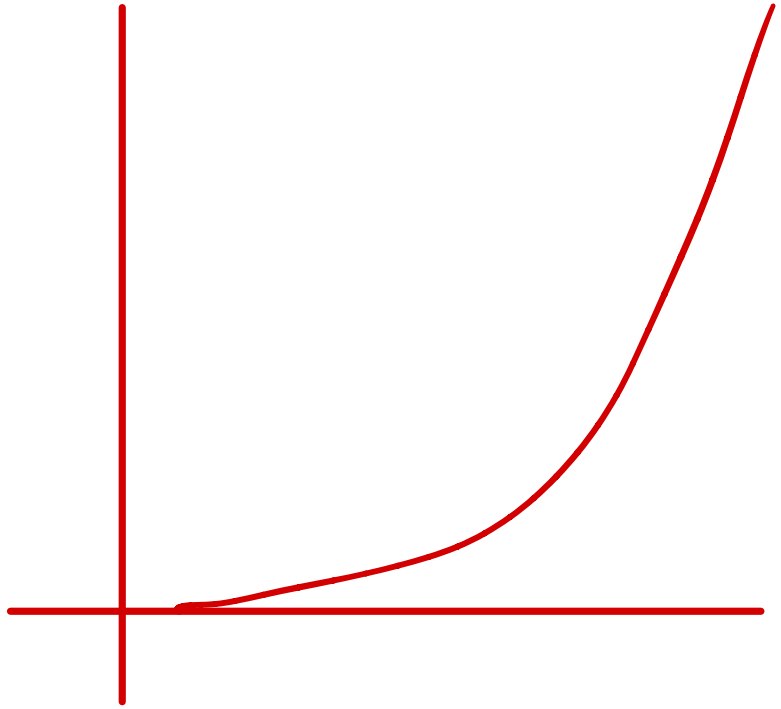
$5^2 = 25$

PYQ May 2025

PYQ May 2025

(43) *A frequency curve which starts with a minimum frequency and then gradually reaches its maximum frequency at the other extremity is known as*

a. *Bell Shaped Curve*
b. *Mixed Curve*
c. *U-Shaped Curve*
d. *J-Shaped Curve*



MTP 2 – May 2025

61. When the data are classified in respect of successive time points, they are known as_____.

(a) Chronological data

(b) Geographical data

(c) Ordinal data

(d) Cordinal data

chronology

MTP 2 – May 2025

MTP 2 - May 2025
(43) *When the data are classified in respect of successive time points, they are known as* *a. Chronological Data* *b. Geographical Data* *c. Ordinal Data* *d. Coordinal Data*

PYQ Jan 2025

6. 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

PYQ Jan 2025

7. For the non–overlapping (inclusive) classes 25-34, 35-44, 45-54, 55-64 the class mark (mid point) of the class 35-44 is

(A) 39.5 ✓

(B) 40.5

(C) 35.0

(D) 44.0

$\frac{35+44}{2} = 39.5$

PYQ Jan 2025

19. A sample of 100 people is taken from a population of 1000. The sample mean height is 170 cm with a standard deviation of 10 cm. What is the standard error of mean ?

(A) 0.5 cm

(B) 1.0 cm ✓

(C) 1.58 cm

(D) 10 cm

$$\text{SE of mean} = \frac{\sigma}{\sqrt{n}} = \frac{10\text{cm}}{\sqrt{100}} = \frac{10}{10} = 1\text{ cm}$$

PYQ Jan 2025

9. Out of 1000 persons, 40% are female, others are male. In a marriage function, 300 persons enjoyed the song. 30% of the people who had not enjoyed the song were female. What is the number of male, who did not enjoy the song in the function ?

(A) 120 (B) 180

(C) 360 (D) 490

	Male	female	Total
enjoy			300
donotenjoy	490	210	700
Total	600	400	1000

PYQ Jan 2025

34. A population comprises 7 members. The number of all possible samples of size 3 that can be drawn from it with replacement is –

(A) 216

(B) 343 ✓

(C) 21

(D) 125

$n^r = 7^3 = 343$

MTP 1 – Jan 2025

MTP 1 – Jan 2025

(64) *The column headings of a table are known as*

a. Body

b. Stub

c. Box Head

d. Caption ✓

row headings = stub

column headings = caption

MTP 1 – Jan 2025

MTP 1 – Jan 2025
(65) *Arrange the dimensions of Bar Diagram, Cube Diagram, Pie Diagram in sequence*
a. 1, 2, 3
b. 2, 1, 3
c. ✓ 2, 3, 2
d. 3, 2, 1

2, 3, 2

MTP 1 – Jan 2025

MTP 1 – Jan 2025

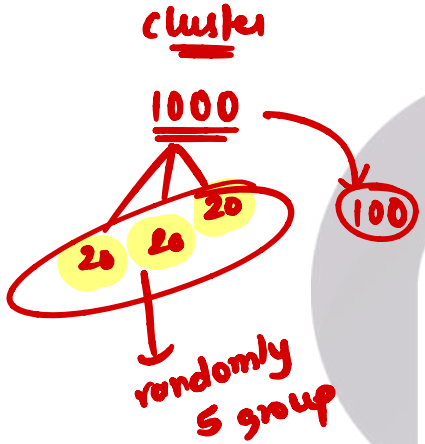
(65) Out of these, which is not a probability sampling?

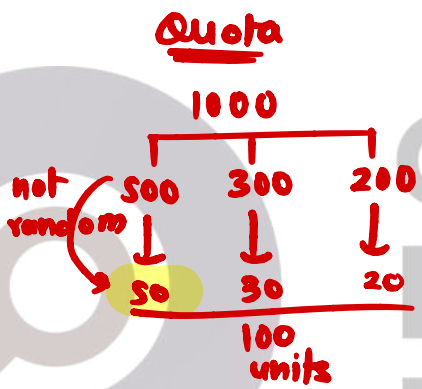
a. Cluster sampling (random) (not in syllabus)

b. Stratified sampling (syllabus)

c. ✓ Quota sampling (not in syllabus)

d. Simple Random Sampling (syllabus)



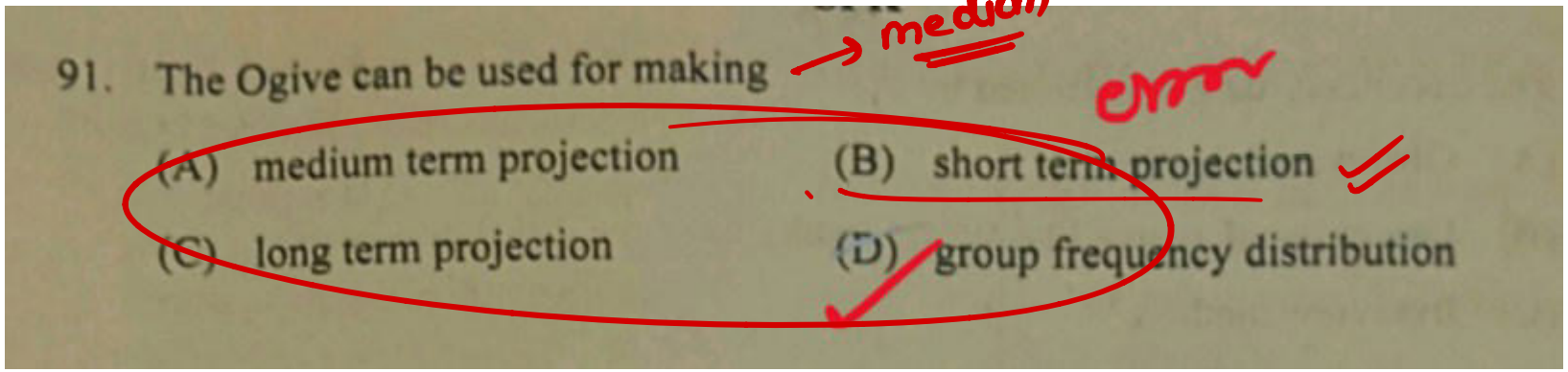


PYQ Sep 2024

87. Exit polls are an example of which method of collecting data ?

(A) Investigation
(B) Random sampling
(C) Census
(D) Quota sampling

PYQ Sep 2024



91. The Ogive can be used for making

(A) medium term projection

(B) short term projection

(C) long term projection

(D) group frequency distribution

PYQ Sep 2024

92. Numerical data presented in descriptive form are called :

(A) Tabular presentation

(B) Classified presentation

(C) Textual presentation

(D) Graphical presentation

PYQ Sep 2024

95. Series in which frequencies are continuously added corresponding to each class interval in the series :

(A) Cumulative frequency series (B) Frequency

(C) Deviation (D) Mid value

x	0-10	10-20	20-30
f	4	13	10
cf	4	17	27

PYQ Sep 2024

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

(A) Categorical data
(B) Continuous data
(C) Ordinal data
(D) Interval data

RTP Sep 2024

18. Median of a distribution can be obtained from -

(a) Frequency polygon

(b) Histogram

(c) ogives

(d) None of these.

RTP Sep 2024

19. Cost of sugar in a month under the heads raw Materials, labour, direct production and others were 12, 20, 35 and 23 units respectively. What is the difference between the central angles for the largest and smallest components of the cost of sugar?

(a) 72°

(b) 48°

(c) 56°

(d) 92°

smallest 12
20
35 — largest
23
90

$\frac{12}{90} \times 360^\circ = 48^\circ$

$\frac{35}{90} \times 360^\circ = 140^\circ$

92°

RTP Sep 2024

27. Histogram is useful to determine graphically the value of -

(a) Arithmetic Mean

(b) Median

(c) Mode

(d) HM

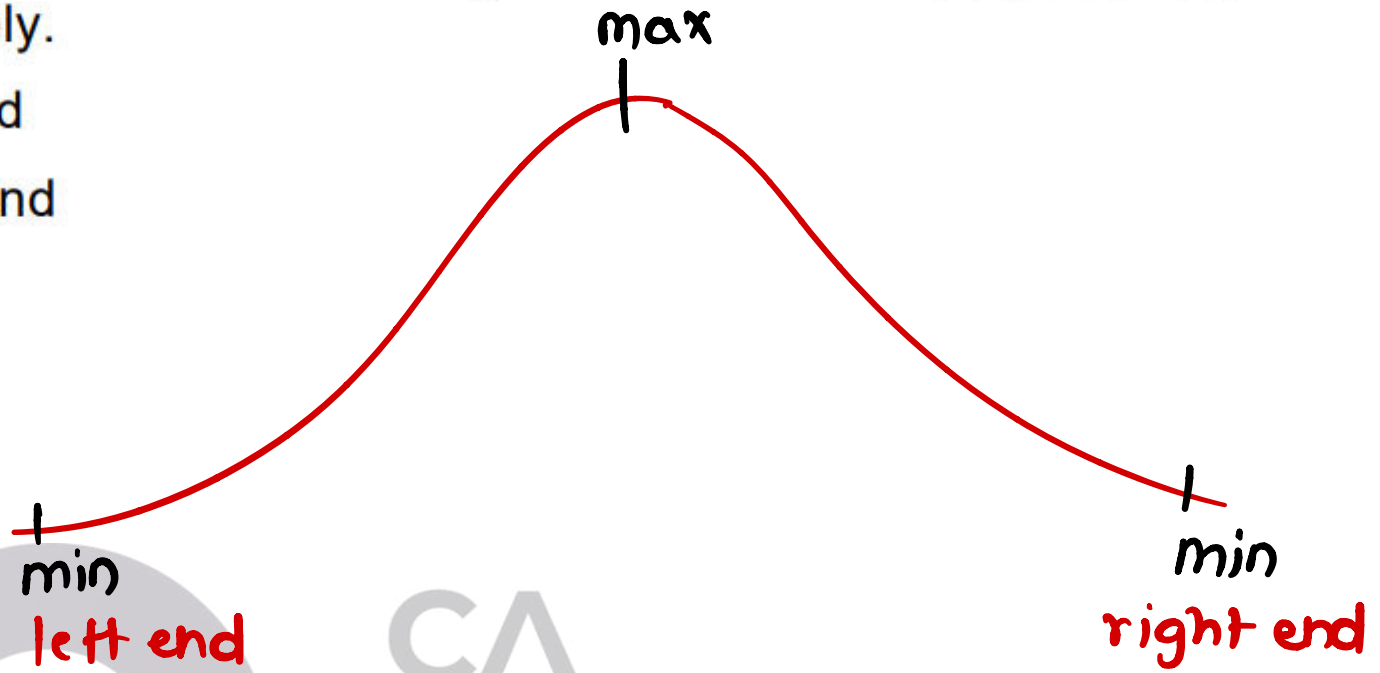
62. According to the empirical rule, if the data form a "bell-shaped "distribution, then the maximum and minimum frequencies occur at middle and ends respectively.

(a) Middle, left end

(b) Middle, right end

(c) End, middle

(d) ✓ Middle, ends



MCQ Compiler Page 13.9

PYQ June 24

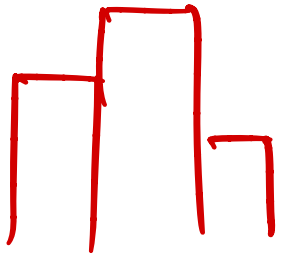
(33) B *Two frequency distributions are given to you. To compare them visually, the best diagram to be drawn on the same sheet is*

a. *Pie chart*

b ✓ *Histogram*

c. *Frequency polygon*

d. *Bar chart*



MCQ Compiler Page 13.9

PYQ June 24

(34) *A histogram and a pie chart represents the same data on monthly expenses of a household. Which statement is most likely true?*

D

a. *The histogram only shows the frequency of each expense category, while the pie chart shows the proportion of each category*

b. *Both the histogram and pie chart show the frequency of each expenses category*

c. *Both the histogram and pie chart show the proportion of each expenses category*

d. *Pie charts are always better than histograms for representing expenses*

MCQ Compiler Page 13.9

PYQ June 24

(35) C *The following set of data cannot be presented in a table*

a. *The heights of students described in centimeters*

b. *The weights of candidates expressed in kilograms*

c. *The amount of rainfall opined as "medium", "average", "heavy", etc.*

d. *The number of bills per day cleared by an auditor in a month*

MCQ Compiler Page 13.9

less than

PYQ June 24

(36) An ogive is used to represent:

B

a. The frequency of each data point

b. The number of data points falling below a specific value

c. The proportion of data points falling below a specific value

d. The relationship between two variables

MCQ Compiler Page 13.16

PYQ June 24

(1) *Which sampling is based on the discretion of the*

D *sampler?*

a. Systematic *b. Multi-stage*

c. Stratified *d. Purposive*

MCQ Compiler Page 13.16

PYQ June 24

(2) *Which of the following is not a type of sampling?*

C

a. Probability

b. Non-probability

c. Stand-Alone

d. Mixed

MCQ Compiler Page 13.16

MTP June 24 Series II

(1) If from a population with 25 members, a random sample without replacement of 2 members is taken, the number of all such samples is

A

a. 300 ✓ b. 625

c. 50 d. 600

$^{n}C_{r}$

$^{25}C_{2}$

$= 300$

MCQ Compiler Page 13.1

PYQ Nov. 20

(4) *The average of salaries in a factory is ₹ 47,000.*

A ☆ *The statement that the average salary ₹ 47,000 is*

a. *Descriptive Statistics*

b. *Inferential*

c. *Detailed*

d. *Undetailed*

MCQ Compiler Page 13.1

PYQ Nov. 20

(9) *The _____ are used usually when we wants to examine the relationship between two variables.*

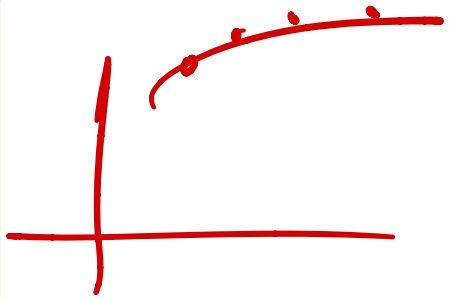
C ☆

a. *Bar Graph*

b. *Pie Chart*

c. ✓ *Line Chart*

d. *Scatter Plot*



MCQ Compiler Page 13.2

PYQ July 21

(17) _____ *Means separating items according to similar characteristics grouping them into various classes:*

A ☆

a. *Classification*

b. *Editing*

c. *Separation*

d. *Tabulation*

MCQ Compiler Page 13.2

PYQ July 21

(18) ☆ *In graphical representation of data, ideographs are also called as:*

D
a. *Picto-graphs*
b. *Asymmetry graphs*
c. *Symmetry graphs*
d. *Pictograms*

class → done

YT → THZ

MCQ Compiler Page 13.3

PYQ June 22

(29) ☆ *Which of the following does not form characteristics in dividing the data?*

D

a. *No. of auditors auditing Accounts.*

b. *No. of files audited by auditor*

c. *No. of files audited less than 6, less than 5, less than 10*

d. *File less than, moderate than, higher than*

MCQ Compiler Page 13.3

		PYQ June 22
(30)	*Which one is research data?*	
☆	*a.*	*Discrete and Continuous*
B	*b.*	*Qualitative and Quantitative*
	c.	*Processed and Unprocessed*
	d.	*Organise and unorganised data*

MCQ Compiler Page 13.4

MTP Nov 18

(3) ☆ A *The technique of graphic presentation is extremely helpful in which of the following*

a. *Analysing the changes at different points of Time*

b. *Analysing cause and effect relationship*

c. *Analysing proportional relationship*

d. *Analysing the degree of relationship*

MCQ Compiler Page 13.8

PYQ Dec 22

(23) *The suitable formula for computing the number*

C *of class intervals is (N is total frequency)*

☆ *a.* $3.322 \log N$ *b.* $0.322 \log N$

c. $1 + 3.322 \log N$ *d.* $1 - 3.322 \log N$

Note: Out of Syllabus

MCQ Compiler Page 13.10

MTP March 21

(17) ☆ *Histogram is used for presentation of the following type of series*

B
a. *Time Service*
b. *Continuous Series*
c. *Discrete Series*
d. *Individual Series*

MCQ Compiler Page 13.12

MTP June 2023 Series II

(38) *Perpendicular is drawn from the point of intersection of 2 Ogives on the horizontal axis. The value of x denotes:*

B

☆

a. *First Quartile*

b. *Second Quartile*

c. *Third Quartile*

d. *Any of the above*

MCQ Compiler Page 13.12

MTP June 2023 Series II

(39) **A** ☆ *In study of impact of novel Coronavirus in the world, a frequency graph is plotted for age on the x axis and fatalities on the y axis. Which frequency curve is most expected as the output?*

a. J shaped curve

b. U shaped curve

c. Bell shaped curve

d. Mixed shaped curve

MCQ Compiler Page 13.12

MTP Dec 2023 Series II

(42) **D** ☆ *From the following data 73, 72, 65, 41, 54, 80, 50, 46, 49, 53, find the number of class intervals if class length is given as 5*

a. 6 *b.* 5

c. 7 *d.* 8

MCQ Compiler Page 13.12

MTP June 24 Series II

(45) *If the width of each of ten classes in a frequency distribution is 2.5 and the lower class boundary is 5.1, then the upper class boundary of the highest class is*

A ☆

a. 30.1 *b.* 31.1

c. 30 *d.* 27.6

MCQ Compiler Page 13.5

MTP Dec 2023 Series I

(24) *When data are classified according one criterion,*

C ☆ *then it is called --------- classification*

a. Quantitative *b. Qualitative*

c. Simple *d. Factored*

MCQ Compiler Page 13.5

MTP Dec 2023 Series II

(27) B *100 students are classified into male/female and graduate/non-graduate classes. This data classification is*

a. *Cardinal data*

b. *Ordinal data*

c. *Spatial Series data*

d. *Temporal data*

MCQ Compiler Page 13.13

PYQ Dec. 21

(2) *In a study about the male and female students of commerce and Science departments of a college in 5 years, the following data's were obtained:*

C

1995	2000
70% female students	75% female students
65% read commerce	40% read science
20% of male students read science	50% of female students read commerce
3000 total no. of students	3600 total no. of students

After combining 1995 and 2000 if x denotes the ratio of female commerce students to female Science student and y denotes the ratio of male commerce student to male Science student, then

a. $x = y$ *b.* $x > y$

c. $x < y$ *d.* $x \geq y$

MCQ Compiler Page 13.13

PYQ Dec. 21

(5) D *The following data relate to the marks of 48 students in Statistics:*

56	10	54	38	21	43	12	22
48	51	39	26	12	17	36	19
48	36	15	33	30	62	57	17
5	17	45	46	43	55	57	38
43	28	32	35	54	27	17	16
11	43	45	2	16	46	28	45

What are the frequency densities for the class intervals 30-39, 40-49, 50-59?

a. 0.20, 0.50, 0.90

b. 0.70, 0.90, 1.10

c. 0.1875, 0.1667, 0.2083

d. 0.9, 1.10, 0.7

MCQ Compiler Page 13.14

MTP Nov 19

(2) *Let L be the lower class boundary of a class in a*
C *frequency distribution and m be the midpoint of*
☆ *the class. Which one of the following is the higher class boundary of the class?*

a. $m+\frac{m+2}{2}$ *b.* $L+\frac{m+L}{2}$

c. $2m-L$ *d.* $m-2L$

MCQ Compiler Page 13.14

MTP March 22

(12) **C** ☆ *In a study relating to the laborer's of a jute mill in West Bengal, the following information was collected. 'Twenty per cent of the total employees were females and forty per cent of them were married. Thirty female workers were not members of Trade Union. Compared to this, out of 600 male workers 500 were members of Trade Union and fifty per cent of the male workers were married. The unmarried non-member male employees were 60 which formed ten per cent of the total male employees. The unmarried non-members of the employees were 80'. On the basis of this information, the ratio of married male non-members to the married female non-members is*

a. 1: 3 *b.* 3: 1

c. 4: 1 *d.* 5: 1