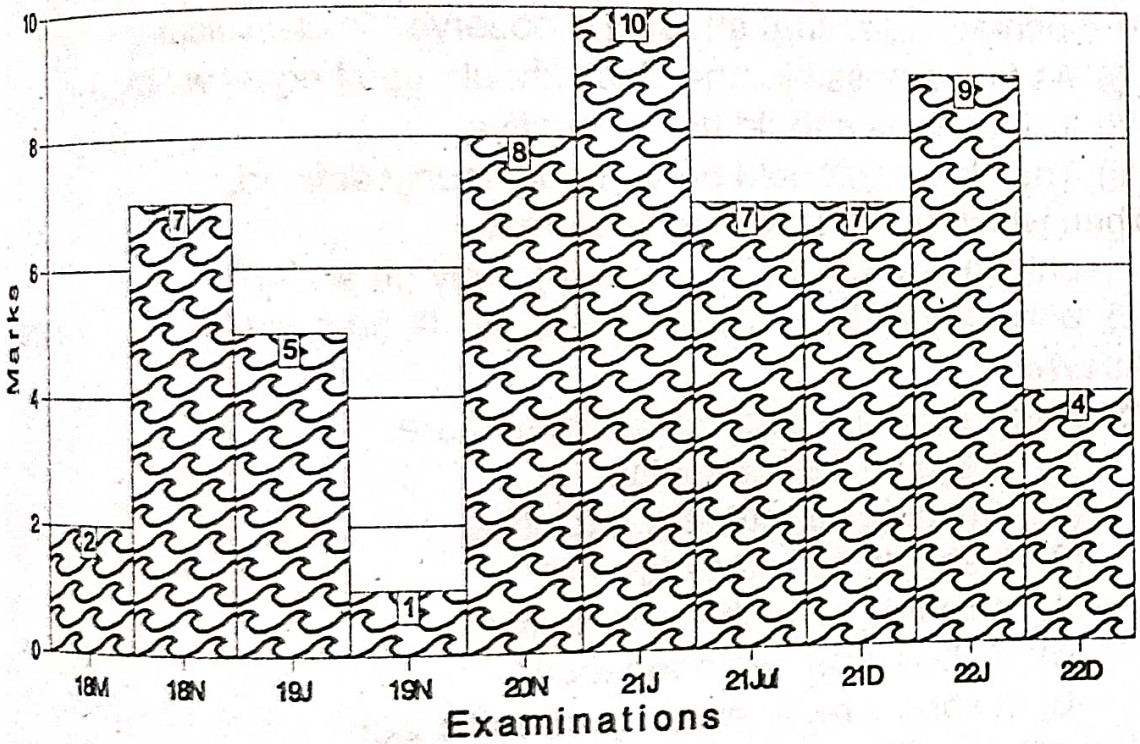
CHAPTER

13 STATISTICAL DESCRIPTION OF DATA

arks of Objective, Short Notes, Distinguish Between, Descriptive & Practical Questions

Legend

Objective | Short Notes | Distinguish | Descriptive | Practical



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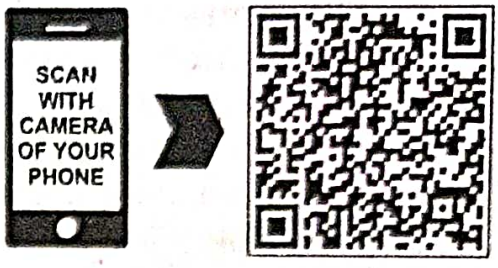

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PAST YEAR QUESTIONS AND ANSWERS

2009 - JUNE

[1] Mid values are also called _____

(a) Lower limit (b) Upper limit
(c) Class mark (d) None (1 mark)

Answer:

(c) Mid-values are also called class mark.

$$\text{Class Mark} = \frac{\text{Lower class limit} + \text{Upper class limit}}{2}$$

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

(a) Line Diagram (b) Pie Diagram
(c) Square Diagram (d) Rectangle Diagram (1 mark)

Answer:

(a) Line Diagram.

[3] Less than type and more than type Ogives meet at a point known as:

(a) Mean (b) Median
(c) Mode (d) None (1 mark)

Answer:

(b) By plotting cumulative frequency against the respective class boundary, we get olives. There are two type of olives :

(i) Less than type ogive.
(ii) More than type ogive.

Olives may be considered for obtaining quartiles graphically. If a perpendicular is drawn from the point of intersection of two olives on the horizontal axis, then the x-value of this point gives us the value of median, the second or middle quartile.
Therefore, the meeting point of less than type ogive and more than type ogive is known as 'Median'.

2009 - DECEMBER

[4] Arrange the dimensions of Bar diagram, Cube diagram, Pie diagram in sequence.
(a) 1, 3, 2 (b) 2, 1, 3
(c) 2, 3, 1 (d) 3, 2, 1 (1 mark)
Answer:
(a) Bar diagram is one dimensional.
Cube diagram has 3 dimensions viz. length breadth and height and hence is three-dimensional.
Pie-diagram is two-dimensional.
Therefore, if we arrange it in sequence, we get:
Bar diagram, cube-diagram and Pie diagram i.e. 1, 3, 2.

[5] With the help of histogram one can find.
(a) Mean (b) Median
(c) Mode (d) First Quartile (1 mark)
Answer:
(c) Histogram is used to find Mode. [Self Explanatory]

[6] Nationality of a person is :
(a) Discrete variable (b) An attribute
(c) Continuous variable (d) None (1 mark)
Answer:
(b) A qualitative characteristic is known as an attribute.
So the nationality of a person is an attribute as it is a qualitative characteristic.

[7] If we plot less than and more than type frequency distribution, then the graph plotted is _____.
(a) Histogram (b) Frequency Curve
(c) Ogive (d) None of these (1 mark)

Answer:

(c) If we plot less than and more than type frequency distribution, then the graph plotted is Ogive.

Ogive are of two types - Less than type ogive and more than type ogive. [self-explanatory]

2010 - JUNE

[8] The primary rules that should be observed in classification

(i) As far as possible, the class should be of equal width

(ii) The classes should be exhaustive

(iii) The classes should be unambiguously defined.

Then which of the following is correct

(a) only (i) and (ii) (b) only (ii) and (iii)

(c) only (i) and (iii) (d) all (i), (ii) and (iii) (1 mark)

Answer:

(b) Requisites of a good classification are:

(1) It should be exhaustive

(2) It should be mutually exclusive

(3) It should be unambiguous

(4) It should be stable and flexible

(5) It should be homogeneous

(6) It should be a revealing classification

[9] Using Ogive Curve, we can determine

(a) Median (b) Quartile

(c) Both (a) and (b) (d) None. (1 mark)

Answer:

(c) Olives are considered for obtaining quartiles graphically. If a perpendicular is drawn from point of intersection of two Olives on horizontal axis, then x-value of this point gives us the value of median (2^{nd} or middle quartile).

2010 - DECEMBER

[10] Mode can be obtained from
(a) Frequency polygon. (b) Histogram.
(c) Ogive (d) All of the above (1 mark)
Answer:
(b) Mode can be obtained from histogram

[11] The data obtained by the internet are
(a) Primary data (b) Secondary data
(c) Both (a) and (b) (d) None of these. (1 mark)
Answer:
(b) Secondary data

[12] The statistical measure computed from the sample observations alone have been termed as
(a) estimate (b) parameter.
(c) statistic (d) attribute. (1 mark)
Answer:
(c) Statistic

2011 - JUNE

[13] When the two curves of ogive intersect, the point of intersection provides :
(a) First Quartile (b) Second Quartile
(c) Third Quartile (d) Mode. (1 mark)
Answer:
(b) We know, that the two curves viz. Less than Ogive & More than Ogive intersect at a point called MEDIAN or we can say Second Quartile.

[14] Frequency Density can be termed as:
(a) Class frequency to the cumulative frequency
(b) Class frequency to the total frequency

(c) Class frequency to the class length
(d) Class length to the class frequency. (1 mark)

Answer:

(c) Class frequency to the class length.

[15] The Choronological classification of data are classified on the basis of :

(a) Attributes (b) Area
(c) Time (d) Class Interval (1 mark)

Answer:

(c) Chronological Classification data are classified on the basis of "TIME".

[16] Arrange the following dimension wise : pie-diagram, bar-diagram and cubic diagram.

(a) 1,2,3 (b) 3,1,2
(c) 3,2,1 (d) 2,1,3 (1 mark)

Answer:

(d) Pie-Diagram :Two Dimensional Diagram (2)
These Diagrams are also called as "Area-Diagrams".
Used when different segments or components of values are also to be presented.

Bar-Diagram : One Dimensional Diagram (1) means such diagrams where only one dimensional measurement i.e. height is used. There is no importance of width or thickness in these diagrams. The heights of bars are taken on the basis of values.

Cubic-Diagram : Three Dimensional Diagram (3) are those in which three dimensions viz length, breadth & height are taken into account. used when these is wide range of data and three different but inter-related features of data are to be represented simultaneously.

2011 - DECEMBER

[17] The frequency of class 20-30 in the following data is

Class	0-10	10-20	20-30	30-40	40-50
Cumulative Frequency	5	13	28	34	38

(a) 5 (b) 28
(c) 15 (d) 13 (1 mark)

Answer:

(c)

Class	Cumulative freq.	Frequency
0-10	5	5
10-20	13	13 – 5 = 8
20-30	28	28 – 13 = 15
30-40	34	34 – 28 = 6
40-50	38	38 – 34 = 4

[18] The Graphical representation by which median is calculated is called
(a) Ogive Curve (b) Frequency Curve
(c) Line diagram (d) Histogram (1 mark)

Answer:

(a) The median is calculated by Ogive Curve

[19] Which of the following is not a two dimensional diagram?
(a) Square diagram (b) Line diagram
(c) Rectangular diagram (d) Pie-chart (1 mark)

Answer:

(b) Line diagram is not two dimensional diagram

2012 - JUNE

[20] From which graphical representation, we can calculate partition values ?
(a) Lorenz curve (b) Ogive curve
(c) Histogram (d) None of the above. (1 mark)

Answer:

(b) We can calculate partition values with the help of **O'Give Curve** for graphical representation.

[21] The data given below refers to the marks gained by a group of students:

Marks	Below 10	Below 20	Below 30	Below 40	Below 50
No. of Students	15	38	65	84	100

The no. of students getting marks more than 30 would be?

(a) 50 (b) 53

(c) 35 (d) 62 (1 mark)

Answer:

(c) We can arrange the data as follows:

Marks	0-10	10-20	20-30	30-40	40-50
Cumulative Frequency	15	38	65	84	100

The above data can further be presented as:

Marks	0-10	10-20	20-30	30-40	40-50
Frequency	15	38 - 15 = 23	65 - 38 = 27	84 - 65 = 19	100 - 84 = 16

Therefore, the number of students who got more than 30 marks = 19 + 16 = 35.

[22] Cost of Sugar in a month under the heads raw materials, labour, direct production and others were 12,20,35 & 23 units respectively. The difference between their central angles for the largest & smallest components of the cost of Sugar is

(a) 92 (b) 72

(c) 48 (d) 56 (1 mark)

Answer:

(a)

Cost of SUGAR :

HEAD	Units	Angular-Value
Raw-Material	12	$\frac{12}{90} \times 360 = 48$ (Smallest)
Labour	20	$\frac{20}{90} \times 360 = 80$

Direct Production 35 $\quad \frac{35}{90} \times 360 = 140$ (Largest)

Others $\quad \frac{23}{90 \text{ Units}} \quad \frac{23}{90} \times 360 = 92$

∴ Difference between their central angles of largest components $= 140 - 48$
$= 92$

2012 - DECEMBER

[23] What is a exclusive series?

(a) In which both upper and lower limit are not included in class frequency.

(b) In which lower limit is not included in class frequency.

(c) In which upper limit is not included in class frequency.

(d) None of the above. (1 mark)

Answer:

(c) In exclusive series, upper limit is not included in class frequency.

[24] For data on frequency distribution of weights:

70; 73, 49, 57, 56, 44, 56, 71, 65, 62, 60, 50, 55, 49, 63 and 45

If we assume class length as 5, the number of class intervals would be

(a) 5 (b) 6

(c) 7 (d) 8 (1 mark)

Answer:

(c)

C.I.	40 45	45-50	50-55	55-60	60-65	65-70	70-75
No. of class intervals = 7							

2013 - JUNE

[25] A pie diagram is used to represent the following data:

Source:	Customs	Excise	Income tax	Wealth tax
Revenue in million rupees:	120	180	240	180

The central angles in the pie diagram corresponding to income tax and wealth tax respectively:

(a) (120°, 90°) (b) (90°, 120°)
(c) (60°, 120°) (d) (90°, 60°) (1 mark)

Answer:

(a) Central Angle $= \frac{\text{Revenue of income tax}}{\text{Total Revenue}} \times 360°$

$= \frac{240}{120+180+240+180} \times 360°$

$= \frac{240}{720} \times 360 = 120$

Central Angle of wealth tax $= \frac{\text{Revenue of wealth tax}}{\text{Total Revenue}} \times 360$

$= \frac{180}{720} \times 360$

$= 90$

2013 - DECEMBER

[26] Difference between the maximum and minimum value of a given data is called

(a) Width (b) Size
(c) Range (d) Class (1 mark)

Answer:

(c) Difference between the maximum and minimum value of given data is called **Range.**

[27] If class interval is 10 - 14, 15 - 19, 20 - 24, then the first class is
(a) 10 - 15 (b) 9.5 - 14.5
(c) 10.5 - 15.5 (d) 9 - 15 (1 mark)

Answer:

(b) Class intervals is 10 - 14, 15 - 19, 20 - 24,

$$D = 15 - 14 = 1$$

$$\frac{D}{2} = \frac{1}{2} = 0.5$$

First class is (10 - 0.5) - (14 + 0.5)

= 9.5 - 14.5

[28] The difference between the upper and lower limit of a class is called _____.
(a) Class Interval (b) Mid Value
(c) Class boundary (d) Frequency (1 mark)

Answer:

(a) The difference between the upper and lower limit of class is called class interval (class width).

2014 - JUNE

[29] There were 200 employees in an office in which 150 were married. Total male employees were 160 out of which 120 were married. What was the number of female unmarried employees?
(a) 30 (b) 10
(c) 40 (d) 50 (1 mark)

Answer:

(b) Total Employees in the office = 200
No. of Employees who are married =150
No. of Employees who are unmarried = 200 - 150 = 50
No. of Total male Employees = 160
No. of Married male Employees = 120
No. of unmarried male Employees = 160 - 120 = 40
No. of females who are unmarried = 50 - 40 = 10

[30] "The less than Ogive" is a:

(a) U-Shaped Curve (b) J-Shaped Curve

(c) S-Shaped (d) Bell Shaped Curve (1 mark)

Answer:

(c) "The less than Ogive" is a s - shaped.

[31] The following data relates to the marks of a group of students.

Marks	No. of Students
More than 70%	07
More than 60%	18
More than 50%	40
More than 40%	60
More than 30%	75
More than 20%	100

How many students have got marks less than 50%?

(a) 60 (b) 82

(c) 40 (d) 53 (1 mark)

Answer:

(a)

Marks (in%) C.I.	Frequency
20 - 30	100 - 75 =25
30 - 40	75 - 60 =15
40 - 50	60 - 40 =20
50 - 60	40 - 18 =22
60 - 70	18 - 07 =11
70 - 80	=07
No. of students who got marks less than 50% = 25 + 15 + 20 = 60	

32] To draw Histogram, the frequency distribution should be:
(a) Inclusive type
(b) Exclusive type
(c) Inclusive and Exclusive type
(d) None of these. (1 mark)

Answer:

(b) To Draw Histogram, the frequency distribution should be exclusive type.

2014 - DECEMBER

33] The most appropriate diagram to represent the five - year plan outlay of India in different economic sectors is:
(a) Pie diagram (b) Histogram
(c) Line-Graph (d) Frequency Polygon (1 mark)

Answer:

(a) Pie diagram

34] If the fluctuations in the observed value are very small as compared to the size of the item, it is presented by:
(a) Z chart (b) Ogive curve
(c) False base line (d) Control chart (1 mark)

Answer:

(c) If the fluctuations in the observed value are very small as compared to the size of the item, it is present by **false base line.**

35] For constructing a histogram, the class-intervals of a frequency distribution must be
(a) equal (b) unequal
(c) equal or unequal (d) none of these (1 mark)

Answer:

(a) For constructing a histogram, the class-intervals of a frequency distribution must be **equal.**

[36] 100 persons 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 (1 mark)

Answer:

(b) ordinal data

2015 - JUNE

[37] If we draw a perpendicular on x-axis from the point of inter-section of both 'less than' and 'more than' frequency curves we will get the value of _____

(a) mode (b) median
(c) arithmetic mean (d) third quartile (1 mark)

Answer:

(b) If we draw a perpendicular on x-axis from the point of intersection of both 'less than' and 'more than' frequency curve. We will get the value of 'Median'.

[38] Histogram is used for the presentation of the following type of series

(a) Time series
(b) Continuous frequency distribution
(c) Discrete frequency distribution
(d) Individual observation

Answer: (1 mark)

(b) Histogram is used for the presentation of the **continuous frequency distribution** of the series.

[39] Curve obtained by joining the points whose x coordinates are the upper limits of the class intervals and y coordinates are the corresponding cumulative frequencies is called.

(a) Frequency Polygon (b) Frequency curve
(c) Histogram (d) Ogive. (1 mark)

Answer:

(d) Curve obtained by joining the points whose x co-ordinate are the upper limits of the class intervals and y co-ordinates are the corresponding cumulative frequencies is called **'o' give.**

[40] The number of observations between 150 and 200 based on the following data is

Value:	More than 100	More than 150	More than 200	More than 250
No. of observations:	76	63	28	05

(a) 46 (b) 35
(c) 28 (d) 23 (1 mark)

Answer:

(b)

C.I.	Frequency
100-150	76-63 = 13
150-200	63-28 = 35
200-250	28-05 = 23
250-300	05

The No. of observation b/w 150 and 200 is 35

[41] The number of car accidents in seven days in a locality are given below:

No. of accidents:	0	1	2	3	4	5	6	7
Frequency:	12	9	11	13	8	9	6	3

What will be the number of cases when 4 or more accidents occurred?

(a) 32 (b) 41
(c) 26 (d) 18 (1 mark)

Answer:

(c)

No. of Accident:	0	1	2	3	4	5	6	7
Frequency:	12	9	11	13	8	9	6	3

No. of Cases when 4 or more Accidents occurred

$= 8 + 9 + 6 + 3 = 26$

2015 - DECEMBER

[42] The most common form of diagrammatic representation of a grouped frequency distribution is:

(a) Histogram (b) Ogive
(c) Both (d) None (1 mark)

Answer:

(a) The most common form of diagrammatic representation of a group frequency distribution is **Histogram.**

[43] Classification is of _____ kinds.

(a) Two (b) Three
(c) One (d) Four (1 mark)

Answer:

(d) Classification is of four kind.

[44] The chart that uses logarithm of variable is known as:

(a) Ratio chart (b) Line chart
(c) Multiple line chart (d) Component line chart (1 mark)

Answer:

(a) The chart that uses logarithm of variable is known as Ratio Chart.

[45] Find the number of observation between 250 and 300 from the following data:

Value more than:	200	250	300	500
No. of observation:	56	38	15	0

(a) 38 (b) 23
(c) 15 (d) None of the above (1 mark)

Answer:

(b)

C.I	Frequency
200-250	56-38 = 18
250-300	38-15 = 23

300-350	15-0 = 15
350-400	0 - 0 = 0

No. of observation b/w 250 and 350 = 23

2016 - JUNE

[46] Data collected on religion from the census reports are:
(a) Primary data (b) Secondary data
(c) Sample data (d) (a) or (b) (1 mark)

Answer:

(b) DATA collected on religion from the census reports are **secondary data.**

2016 - DECEMBER

[47] In collection of data which of the following interview methods:
(a) Personal interview method
(b) Telephone interview method
(c) Published data
(d) (a) and (b) (1 mark)

Answer:

(d) Personal Interview Method and Telephone Interview Method are the Interview Method.

[48] For constructing a histogram the class intervals of a frequency distribution must be of the following type:
(a) Equal (b) Unequal
(c) Equal or Unequal (d) None of these (1 mark)

Answer:

(a) For constructing a histogram the class intervals of a frequency distribution must be equal.

[49] 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. (1 mark)

Answer:

(c) Profit made by XYZ Bank in different years refer to a continuous variable because Blue chips company's profit always increased.

[50] Mode of presentation data
(a) Textual presentation (b) Tabulation
(c) Oral presentation (d) (a) and (b) (1 mark)

Answer:

(d) Mode of presentation data are textual presentation and tabulation.

2017 - JUNE

[51] If the data represent costs spent on conducting an examination under various needs, then the most suitable diagram will be:
(a) Pie diagram (b) Frequency diagram
(c) Bar diagram (d) Multiple bar diagram (1 mark)

Answer:

(a) If the data represent cost spent on conducting an examination under various heads then the most suitable diagram will be **Pie diagram.**

[52] Frequency density corresponding to class interval 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 the cumulative frequency

(1 mark)

Answer:

(b) Frequency density corresponding to a class Interval is the Ratio of class Frequency to the class Length.

$$\text{Frequency density} = \frac{\text{Frequency of the class}}{\text{Class width}}$$

[53] The point of intersection of less than ogive and greater than ogive curve gives us:

(a) Mean (b) Mode

(c) Median (d) None of the above. (1 mark)

Answer:

(c) The point of intersection of less than '0' give and greater than '0' give curve gives us Median.

2017 - DECEMBER

[54] 'Stub' of a table is the

(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. (1 mark)

Answer:

(d) 'Stub' of a table is the left part of the table describing the rows.

[55] Frequency density corresponding to a class interval is the ratio of

(a) Class frequency to total frequency

(b) Class frequency to the class length

(c) Class length to class frequency

(d) Class frequency to the cumulative frequency. (1 mark)

Answer:

Please refer question no. [52] on page no. 694.

2018 - MAY

[56] Frequency density is used in the construction of
(a) Histogram
(b) Ogive
(c) Frequency polygon
(d) None when the classes are of unequal width (1 mark)

Answer:

(a) Frequency density is used in the construction of Histogram.

[57] Divided bar chart is considered for
(a) Comparing different components of a variable
(b) The relation of different components to the table
(c) (a) or (b)
(d) (a) and (b) (1 mark)

Answer:

(d) Divided Bar Chart is considered for comparing different components of a variable and the relation of different components to the table.

2018 - NOVEMBER

[58] The following frequency distribution

X :	12	17	24	36	45
F :	2	5	3	8	9

is classified as
(a) Continuous distribution
(b) Discrete distribution
(c) Cumulative frequency distribution
(d) None of the above (1 mark)

Answer:

(b)

X:	12	17	24	36	45
F:	2	5	3	8	9

is classified as Discrete distribution.

[59] Histogram is useful to determine graphically the value of

(a) Arithmetic mean (b) Median

(c) Mode (d) None of the above (1 mark)

Answer:

(c) Histogram is useful to determine graphically the value of "mode".

[60] Data are said to be _____ if the investigator himself is responsible for the collection of the data.

(a) Primary data

(b) Secondary data

(c) Mixed of primary and secondary data

(d) None of the above (1 mark)

Answer:

(a) Data are said to be Primary data if the Investigator himself is responsible for the collection of the data.

[61] A suitable graph for representing the portioning of total into sub parts in statistics is:

(a) A Pie chart (b) A pictograph

(c) An ogive (d) Histogram (1 mark)

Answer:

(a) A suitable graph for representating the portioning of total into sub parts in statistics is A Pie chart.

[62] The number of times a particular items occurs in a class interval is called its:

(a) Mean (b) Frequency

(c) Cumulative frequency (d) None of the above (1 mark)

Answer:

(b) The number of times a particular items occurs in a Class Interval is called its Frequency.

[63] An ogive is a graphical representation of
(a) Cumulative frequency distribution
(b) A frequency distribution
(c) Ungrouped data
(d) None of the above (1 mark)

Answer:

(a) An 'O' give is a graphical representation of cumulative frequency distribution.

[64]

Class	0 - 10	10 - 20	20 - 30	30 - 40	40 - 50
Frequency	4	6	20	8	3

For the class 20-30. Cumulative frequency is:
(a) 10 (b) 26
(c) 30 (d) 41 (1 mark)

Answer:

(c)

C.I	F	C. F
0-10	4	4
10-20	6	10
20-30	20	30
30-40	8	38
40-50	3	

Cumulative frequency of Class Interval '20-30' is 30.

2019 - JUNE

[65] Which of the following graph is suitable for cumulative frequency distribution?
(a) 'O'give
(b) Histogram

(c) G.M
(c) A.M (1 mark)

Answer:

(a) 'O'give is graph suitable for cumulative frequency distribution.

[66] Histogram can be shown as
(a) Ellipse
(b) Rectangle
(c) Hyperbola
(d) Circle (1 mark)

Answer:

(b) Histogram can be shown as Rectangle.

[67] _____ Series is continuous.
(a) Open ended
(b) Exclusive
(c) Close ended
(d) Unequal call intervals (1 mark)

Answer:

(b) Exclusive Series is continuous.

[68] Ogive graph is used for finding
(a) Mean
(b) Mode
(c) Median
(d) None (1 mark)

Answer:

(c) 'O'give graph is used for finding 'Median'.

[69] Histogram is used for finding
(a) Mode
(b) Mean
(c) First quartile
(d) None (1 mark)

Answer:

(a) Histogram is used for finding 'Mode'.

2019 - NOVEMBER

[70] The graphical representation of cumulative frequency distribution is called.
(a) Histogram
(b) Historiagram
(c) Ogive
(d) None (1 mark)

Answer:

(c) A curve that represents the cumulative frequency distribution of a grouped data on a graph is called ogive.
Cumulative frequency on y-axis
Class interval on x-axis

2020 - NOVEMBER

[71] The average of salaries in a factory is ₹ 47,000. The Statement that the average salary ₹ 47,000 is _____.
(a) Descriptive statics
(b) Inferential
(c) Detailed
(d) Undetailed (1 mark)

Answer:

(b) Inferential statistics.

[72] Statistics cannot deal with _____ data.
(a) quantitative
(b) qualitative
(c) textual
(d) undetailed (1 mark)

Answer:

(b) Statistics cannot deal with qualitative data.

[73] Sweetness of a sweet dish is:
(a) Attribute
(b) Discrete variable
(c) Continuous variable
(d) Variable (1 mark)

Answer:
(a) Sweetness of a sweet dish is attribute.

[74] Census reports are used as a source of _____ date.
(a) Secondary
(b) Primary
(c) Organize
(d) Confidential (1 mark)

Answer:
(a) Census Report are used as a source of secondary data.

[75] Types of cumulative frequencies are:
(a) 1
(b) 2
(c) 3
(d) 4 (1 mark)

Answer:
(b) Cumulative frequencies are two types.
(1) Less than C.F. (2) more than C. F.

[76] You are an auditor of a firm and the firm earns a profit of ₹ 67,000 you stated to them that the annual profit is ₹ 67,000. This is _____ type of statistics.
(a) Descriptive
(b) Detailed
(c) Non detailed
(d) Inferential (1 mark)

Answer:
(d) Inferential statistics.

[77] The _____ are used usually when we wants to examine the relationship between two variables.

(a) Bar Graph
(b) Pie Chart
(c) Line Chart
(d) Scatter Plot (1 mark)

Answer:

(c) Line chart.

[78] When data are classified according to one criterion, then it is called _____ classification.

(a) quantitative
(b) qualitative
(c) simple
(d) factored (1 mark)

Answer:

(c) When data are classified according to characteristics then it is called simple classification.

2021 - JANUARY

[79] A bar chart is drawn for

(a) Continuous data
(b) Nominal data
(c) Time series data
(d) Comparing different components (1 mark)

Answer:

(d) A bar chart is drawn for comparing different component.

[80] A tabular presentation can be used for

(a) Continuous series data
(b) Nominal data
(c) Time series data for longer period
(d) Primary data (1 mark)

Answer:

(b) A Tabular presentation can be used for Nominal data.

[81] A variable with qualitative characteristic is known as
(a) Quality Variable
(b) An attribute
(c) A discrete variable
(d) A continuous variable (1 mark)

Answer:

(b) A variable with qualitative characteristic is known as **an Attribute.**

[82] The accuracy and consistency of data can be verified by
(a) Scrutiny
(b) Internal Checking
(c) External Checking
(d) Double Checking (1 mark)

Answer:

(a) The Accuracy and consistency of data can be verified by scrutiny.

[83] From a histogram one cannot compute the approximate value of
(a) Mode
(b) Standard deviation
(c) Median
(d) Mean (1 mark)

Answer:

(b) We can not compute the Approximate value of Standard Deviation from a Histogram.

[84] The left part of a table providing the description of rows is called.
(a) Caption
(b) Box - head
(c) Stub
(d) Body (1 mark)

Answer:

(c) The Left part of a table providing the description of rows is called.

[85] Mode can be obtained from _____
(a) Frequency polygon
(b) Histogram

(c) Ogive
(d) All of the above (1 mark)

Answer:

(b) Mode can be obtained from **Histogram.**

[86] Most of the Commonly used distributions provide a.
(a) Bell - Shaped
(b) U Shaped
(c) J - Shaped Curve
(d) Mixed Curve (1 mark)

Answer:

(a) Most of the commonly used distributions provide a **bell-shaped.**

[87] Which of the following is suitable for the graphical representation of a Cumulative frequency distribution ?
(a) Frequency polygon
(b) Histogram
(c) O give
(d) Pie chart (1 mark)

Answer:

(c) 'O' give is suitable for the graphical representation of a cumulative frequency distribution.

[88] Sweetness of sweet dish is.
(a) An Attribute
(b) A discrete variable
(c) A continuous variable
(d) A variable (1 mark)

Answer:

(a) Sweetness of sweet dish is an Attribute.

2021 - JULY

[89] _____ Means separating items according to similar characteristics grouping them into various classes:
(a) Classification
(b) Editing

(c) Separation
(d) Tabulation (1 mark)

Answer:

(a) **Classification** means separating items according to similar characteristics grouping them into various classes.

[90] In graphical representation of data, ideographs are also called as:
(a) Picto-graphs
(b) Asymmetry graphs
(c) Symmetry graphs
(d) Pictograms (1 mark)

Answer:

(d) In graphical representation of data.
Ideographs are also called as pictograms.

[91] A graph that uses vertical bars to represent data is called a:
(a) Line graph
(b) Scatter plot
(c) Vertical graphs
(d) Bar graph (1 mark)

Answer:

(d) A graph that uses vertical bars to represent data is called a **Bar graph.**

[92] In a graphical representation of data, the largest numerical value is 4 the smallest numerical value is 25. If classes desired are 4 then which class interval is:-
(a) 45
(b) 5
(c) 20
(d) 7.5 (1 mark)

Answer:

(b) No. of class Interval $= \frac{\text{Largest value} - \text{Smallest value}}{\text{Class width}}$

$$= \frac{45-25}{4} = \frac{20}{4} = 5$$

[93] Frequency density of a class interval is the ratio of _____.

(a) Class frequency to the total frequency
(b) Class length to class frequency.
(c) Class frequency to the cumulative frequency.
(d) Frequency of that class interval to the corresponding class length.

(1 mark)

Answer:

(d) Frequency density of a class interval is the Ratio of frequency of that class interval to the corresponding class length.

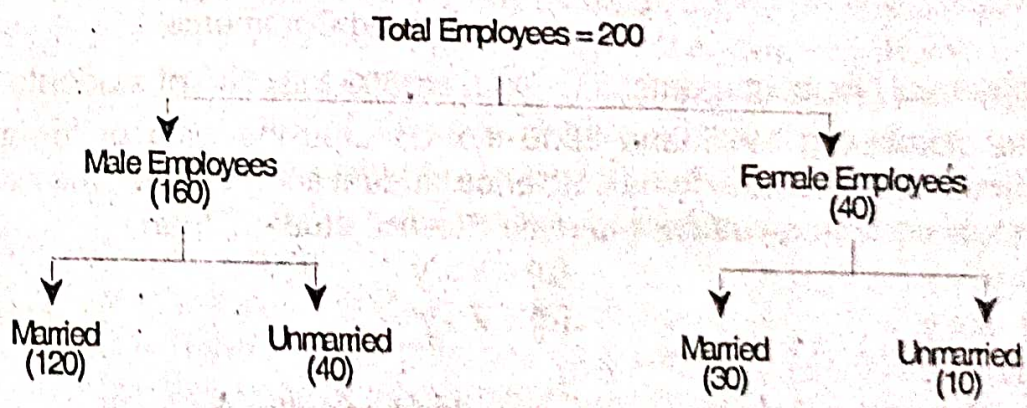
[94] There were 200 employees in an office in which 150 were married. Total male employees were 160 out of which 120 were married. What was the number of female unmarried employees?

(a) 30
(b) 40
(c) 50
(d) 10

(1 mark)

Answer:

(d)



So, No of female unmarried employees = 10

[95] Data collected on religion from the census reports are:
(a) Primary data
(b) Unclassified data
(c) Sample data
(d) Secondary data (1 mark)

Answer:

(d) Data collected on religion from the census reports are **secondary data.**

2021 - DECEMBER

[96] 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:

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) $x \geq y$ (1 mark)

Answer:

(c) The entire data can be summarized as follows:

Particulars	1995		2000	
No. of Students		3,000		3,600
No. of Female Students	(70% × 3,000)	2,100	(75% × 3,600)	2,700
No. of Male Students	(30% × 3,000)	900	(25% × 3,600)	900

No. of Commerce Students	(65% × 3,000)	1,950	(60% × 3,600)	2,160
No. of Science Students	(35% × 3,000)	1,050	(40% × 3,600)	1,440
No. of Male Science Students	(20% × 900)	180	(900 – 810)	90
No. of Male Commerce Students	(80% × 900)	720	(2,160 – 1,350)	810
No. of Female Science Students	(1,050 – 180)	870	(50% × 2,700)	1,350
No. of Female Commerce Students	(1,950 – 720)	1,230	(50% × 2,700)	1,350

Total female commerce students = 1,230 + 1,350 = 2,580
Total female science students = 870 + 1,350 = 2,220

Therefore, $x = \frac{2,580}{2,220} = 1.1622$

Total male commerce students = 720 + 810 = 1,530
Total male science students = 180 + 90 = 270

Therefore, $y = \frac{1,530}{270} = 5.6667$

Clearly, $x < y$.

[97] A National Institute arranged its students data in accordance with different states. This arrangement of data is known as
(a) Temporal Data (b) Geographical Data
(c) Ordinal Data (d) Cardinal Data. (1 mark)

Answer:

(b) Data arranged in accordance with states is Geographical data.

[98] A student marks in five subject S1, S2, S3, S4 and S5 are 86, 79, 90, 88 and 89. If we need to draw a Pie chart to represent these markes, then what will be the Central angle for S3?
(a) 103.2° (b) 75°
(c) 105.6° (d) 94.8° (1 mark)

Answer:

(b) Total Marks = 86 + 79 + 90 + 88 + 89 = 432

Marks in S3 = 90

Central Angle = $\frac{90}{432} \times 360 = 75^\circ$

[99] Ogive curves cannot be used to determine

(a) Mean (b) Median

(c) Mode (d) Range (1 mark)

Answer:

(b) This question seems to be wrong. The correct question should be "Ogive curves can be used to determine:"

The answer would then be (b) Median.

[100] The following data relate to the marks of a group of students:

Marks	Below 10	Below 20	Below 30	Below 40	Below 50
No. of students	15	38	65	84	100

How many students got marks more than 30?

(a) 65 (b) 50

(c) 35 (d) 43 (1 mark)

Answer:

(c) From the table it is clear that total number of students = 100, and the number of students who got marks below 30 = 65.

Therefore, number of students who got marks more than 30 = 100 – 65 = 35.

[101] 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) 0.90, 1.00, 0.80 (1 mark)

Answer:

(d) Frequency Density = $\frac{\text{Class Frequency}}{\text{Class Length}}$

Class Interval	Observations	Frequency
30 – 39	38, 39, 36, 36, 33, 30, 38, 32, 35	9
40 – 49	43, 48, 48, 45, 46, 43, 43, 43, 45, 46, 45	11
50 – 59	56, 54, 51, 57, 55, 57, 54	7

Therefore, Frequency Density for the Class Interval 30 – 39 = 9 ÷ 10 = 0.90

Frequency Density for the Class Interval 40 – 49 = 11 ÷ 10 = 1.10

Frequency Density for the Class Interval 50 – 59 = 7 ÷ 10 = 0.70

Note, in the ICAI Study Material, option (d) is given as 0.90, 1.10, 0.70, and thus that is the correct answer. However, in the exam, option (d) came as 0.90, 1.00, 0.80, which is not the right answer. As a student, a conservative approach would be to leave this question unmarked to avoid the risk of negative marking.

Note: You cannot mark option (b) because it is not in the proper sequence.

[102] Multiple axis line chart is considered when

(a) There is more than one time series

(b) The units of the variables are different.

(c) In any case.

(d) If there are more than one time series and unit of variables are different. (1 mark)

Answer:

(d) If there are more than one time series and unit of variables are different then multiple Axis line chart is considered.

2022 - JUNE

[103] Less than 'o' give curve give -
(a) Mean (b) Median
(c) Mode (d) M D (1 mark)
Answer:
(b) Less than 'o' give curve gives Median.

[104] If a data collected from a census Report. What type of data it is :-
(a) Time series data (b) Primary data
(c) Secondary data (d) Geographical data (1 mark)
Answer:
(c) If a data collected from a census report is known as secondary data.

[105] Sweetness is an
(a) Attribute (b) Quantity
(c) Quality (d) None of these (1 mark)
Answer:
(d) Sweetness is an Attribute (quality)

[106] Which of the following is not a way of Presenting data?
(a) Tabular form (b) Textual form
(c) Graphical form (d) Regression analysis (1 mark)
Answer:
(d) Regression Analysis is not a way of Presenting data?

[107] Histogram can be drawn from
(a) Class interval are equal
(b) Class interval are unequal
(c) Frequency of class interval are equal
(d) None (1 mark)
Answer:
(a) Histogram can be drawn from class Interval are equal.

[108] Which of following does not form characteristics in dividing the data?
(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) Files less than, moderate than, higher than. (1 mark)

Answer:

(d) Files less than, moderate than, higher than does not form characteristics in dividing the data.

[109] If the cumulative frequency are plotted on axis then which type of curve is formed
(a) Ogive
(b) Frequency curve
(c) Histogram
(d) Frequency Polygon (1 mark)

Answer:

(a) 'O' Give [C.F is used for constructed 'O' Give

[110] Which one is research data?
(a) Discrete and Continious
(b) Qualitative and Quantitative
(c) Processed and Unprocessed
(d) Organise and unorganised data (1 mark)

Answer:

(c) Processed and unprocessed data is a research data.

[111] The profitability of a blue chip company is shown by –
(a) bell shape curve
(b) U shake curve
(c) J shape curve
(d) Mixed curve (1 mark)

Answer:

(a) The profitability of a blue chip company is shown by bell shape Curve

2022 - DECEMBER

[112] Which one of the following is a source of primary data?
(a) Government Records
(b) Research Articles
(c) Journals
(d) Questionnaire filled by Enumerators (1 mark)

Answer:
(d) Questionnaire filled by enumerators is a source of primary data.

[113] Which is the left part of the table providing the description of the rows?
(a) Caption (b) Box head
(c) Stub (d) Body (1 mark)

Answer:
(c) **Stub** is the left part of the table providing the description of the rows.

[114] The suitable formula for computing the number of class intervals is:
(a) 3.322 logN (b) 0.322 logN
(c) 1 + 3.322 logN (d) 1 –3.322 logN (1 mark)

Answer:
(c) Number of class interval (k) = 1 + 3.322 log N
When N → Total frequency.

[115] Ogive for more than type and less than type distributions intersect at:
(a) Mean (b) Median
(c) Mode (d) Origin (1 mark)

Answer:
(b) 'O' Give for more than type and less than type distribution intersect at **Median.**