* **Question 1**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | The most common graphical presentation of quantitative data is a |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | a.  histogram. | | Answers: | a.  histogram. | |  | b.  bar chart. | |  | c.  stem and leaf display. | |  | d.  pie chart. | |  |  |  |

* **Question 2**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | In a cumulative frequency distribution, the last class will always have a cumulative frequency equal to |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | c.  the total number of elements in the data set. | | Answers: | a.  one. | |  | b.  100%. | |  | c.  the total number of elements in the data set. | |  | d.  10. | |  |  |  |

* **Question 3**

0 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | The sum of frequencies for all classes will always equal |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | a.  1. | | Answers: | a.  1. | |  | b.  the number of classes. | |  | c.  a value between 0 and 1. | |  | d.  the number of elements in a data set. | |  |  |  |

* **Question 4**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | The sum of the percent frequencies for all classes will always equal |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | b.  100. | | Answers: | a.  the number of items in the study. | |  | b.  100. | |  | c.  the number of classes. | |  | d.  one. | |  |  |  |

* **Question 5**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | A survey of 800 college seniors resulted in the following crosstabulation regarding their undergraduate major and whether or not they plan to go to graduate school.   |  |  |  |  |  | | --- | --- | --- | --- | --- | | **Undergraduate Major** | | | | | | **Graduate School** | **Business** | **Engineering** | **Others** | **Total** | | Yes | 70 | 84 | 126 | 280 | | No | 182 | 208 | 130 | 520 | | **Total** | 252 | 292 | 256 | 800 |   ​  Of those students who are planning on going to graduate school, what percentage are majoring in engineering? |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | a.  30.0 | | Answers: | a.  30.0 | |  | b.  28.8 | |  | c.  10.5 | |  | d.  40.4 | |  |  |  |

* **Question 6**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | ​Which of the following is least useful in making comparisons or showing the relationships of two variables? |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | b.  ​Stem-and-leaf display | | Answers: | a.  Stacked bar chart | |  | b.  ​Stem-and-leaf display | |  | c.  ​Scatter diagram | |  | d.  ​Crosstabulation | |  |  |  |

* **Question 7**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | The numbers of hours worked (per week) by 400 statistics students are shown below.   |  |  | | --- | --- | | **Number of hours** | **Frequency** | | 0 -9 | 20 | | 10 - 19 | 80 | | 20 - 29 | 200 | | 30 - 39 | 100 |   ​  The cumulative percent frequency for students working less than 20 hours per week is |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | b.  25%. | | Answers: | a.  80%. | |  | b.  25%. | |  | c.  20%. | |  | d.  100%. | |  |  |  |

* **Question 8**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | A cumulative relative frequency distribution shows |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | b.  the proportion of data items with values less than or equal to the upper limit of each class. | | Answers: | a.  the percentage of data items with values less than or equal to the lower limit of each class. | |  | b.  the proportion of data items with values less than or equal to the upper limit of each class. | |  | c.  the proportion of data items with values less than or equal to the lower limit of each class. | |  | d.  the percentage of data items with values less than or equal to the upper limit of each class. | |  |  |  |

* **Question 9**

0 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | A histogram is |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | b.  a graphical method of presenting a cumulative frequency or a cumulative relative frequency distribution. | | Answers: | a.  the history of data elements. | |  | b.  a graphical method of presenting a cumulative frequency or a cumulative relative frequency distribution. | |  | c.  the same as a pie chart. | |  | d.  a graphical presentation of a frequency or relative frequency distribution. | |  |  |  |

* **Question 10**

0 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | ​A graphical device for depicting categorical data that have been summarized in a frequency distribution, relative frequency distribution, or percent frequency distribution is a |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | a.  ​histogram. | | Answers: | a.  ​histogram. | |  | b.  ​dot plot. | |  | c.  ​bar chart. | |  | d.  ​stem-and-leaf display. | |  |  |  |

* **Question 11**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | When the conclusions based upon the unaggregated data can be completely reversed if we look at the aggregated crosstabulation, the occurrence is known as |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | b.  ​Simpson's paradox. | | Answers: | a.  ​Pareto's rule. | |  | b.  ​Simpson's paradox. | |  | c.  ​Reverse correlation. | |  | d.  ​Negative correlation​. | |  |  |  |

* **Question 12**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | A tabular summary of a set of data showing the fraction of the total number of items in several classes is a |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | b.  relative frequency distribution. | | Answers: | a.  cumulative frequency distribution. | |  | b.  relative frequency distribution. | |  | c.  frequency distribution. | |  | d.  cumulative relative frequency distribution. | |  |  |  |

* **Question 13**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | A graphical presentation of the relationship between two quantitative variables is​ |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | b.  ​scatter diagram. | | Answers: | a.  ​dot plot. | |  | b.  ​scatter diagram. | |  | c.  ​stem-and-leaf display. | |  | d.  ​histogram. | |  |  |  |

* **Question 14**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | The numbers of hours worked (per week) by 400 statistics students are shown below.   |  |  | | --- | --- | | **Number of hours** | **Frequency** | | 0 - 9 | 20 | | 10 - 19 | 80 | | 20 - 29 | 200 | | 30 - 39 | 100 |   ​  The midpoint of the last class is |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | a.  34.5. | | Answers: | a.  34.5. | |  | b.  35.5 | |  | c.  35. | |  | d.  34. | |  |  |  |

* **Question 15**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | The relative frequency of a class is computed by |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | c.  dividing the frequency of the class by n. | | Answers: | a.  dividing n by cumulative frequency of the class. | |  | b.  dividing the cumulative frequency of the class by n. | |  | c.  dividing the frequency of the class by n. | |  | d.  dividing the frequency of the class by the number of classes. | |  |  |  |

* **Question 16**

0 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | A sample of 15 children shows their favorite restaurants:  ​   |  |  |  | | --- | --- | --- | | McDonalds | Luppi's | Mellow Mushroom | | Friday's | McDonalds | McDonalds | | Pizza Hut | Taco Bell | McDonalds | | Mellow Mushroom | Luppi's | Pizza Hut | | McDonalds | Friday's | McDonalds |   ​  Which of the following distributions would be inappropriate for this data? |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | c.  Frequency | | Answers: | a.  Percent frequency | |  | b.  Relative frequency | |  | c.  Frequency | |  | d.  Cumulative frequency | |  |  |  |

* **Question 17**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | In a cumulative percent frequency distribution, the last class will have a cumulative percent frequency equal to |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | b.  100. | | Answers: | a.  one. | |  | b.  100. | |  | c.  the total number of elements in the data set. | |  | d.  None of these alternatives is correct. | |  |  |  |

* **Question 18**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | A sample of 15 children shows their favorite restaurants:  ​   |  |  |  | | --- | --- | --- | | McDonalds | Luppi's | Mellow Mushroom | | Friday's | McDonalds | McDonalds | | Pizza Hut | Taco Bell | McDonalds | | Mellow Mushroom | Luppi's | Pizza Hut | | McDonalds | Friday's | McDonalds |   ​  Which of the following is the correct percent frequency for McDonalds? |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | a.  40% | | Answers: | a.  40% | |  | b.  2% | |  | c.  10% | |  | d.  27% | |  |  |  |

* **Question 19**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | Data that provide labels or names for categories of like items are known as |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | c.  categorical data. | | Answers: | a.  quantitative data. | |  | b.  category data. | |  | c.  categorical data. | |  | d.  label data. | |  |  |  |

* **Question 20**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | The difference between the lower class limits of adjacent classes provides the |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | a.  class width. | | Answers: | a.  class width. | |  | b.  number of classes. | |  | c.  class midpoint. | |  | d.  class limits. | |  |  |  |

* **Question 21**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | A sample of 15 children shows their favorite restaurants:  ​   |  |  |  | | --- | --- | --- | | McDonalds | Luppi's | Mellow Mushroom | | Friday's | McDonalds | McDonalds | | Pizza Hut | Taco Bell | McDonalds | | Mellow Mushroom | Luppi's | Pizza Hut | | McDonalds | Friday's | McDonalds |   ​  Which of the following is the correct relative frequency for McDonalds? |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | a.  .4 | | Answers: | a.  .4 | |  | b.  .27 | |  | c.  .6 | |  | d.  .5 | |  |  |  |

* **Question 22**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | ​In a stem-and-leaf display, |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | d.  ​one or more digits are used to define each stem, and a single digit is used to define each leaf. | | Answers: | a.  ​a single digit is used to define each stem, and one or more digits are used to define each leaf. | |  | b.  ​a single digit is used to define each stem, and a single digit is used to define each leaf. | |  | c.  ​one or more digits are used to define each stem, and one or more digits are used to define each leaf. | |  | d.  ​one or more digits are used to define each stem, and a single digit is used to define each leaf. | |  |  |  |

* **Question 23**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | A frequency distribution is |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | d.  a tabular summary of a set of data showing the frequency of items in each of several nonoverlapping classes. | | Answers: | a.  a graphical form of representing data. | |  | b.  a tabular summary of a set of data showing the relative frequency. | |  | c.  a graphical device for presenting categorical data. | |  | d.  a tabular summary of a set of data showing the frequency of items in each of several nonoverlapping classes. | |  |  |  |

* **Question 24**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | A survey of 800 college seniors resulted in the following crosstabulation regarding their undergraduate major and whether or not they plan to go to graduate school.   |  |  |  |  |  | | --- | --- | --- | --- | --- | | **Undergraduate Major** | | | | | | **Graduate School** | **Business** | **Engineering** | **Others** | **Total** | | Yes | 70 | 84 | 126 | 280 | | No | 182 | 208 | 130 | 520 | | **Total** | 252 | 292 | 256 | 800 |   ​  The above crosstabulation shows |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | c.  frequencies. | | Answers: | a.  row percentages. | |  | b.  column percentages. | |  | c.  frequencies. | |  | d.  overall percentages. | |  |  |  |

* **Question 25**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | In quality control applications, bar charts are used to identify the most important causes of problems.  When the bars are arranged in descending order of height from left to right with the most frequently occurring cause appearing first, the bar chart is called a​ |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | c.  ​Pareto diagram. | | Answers: | a.  ​Stacked bar chart. | |  | b.  ​Cause-and-effect diagram. | |  | c.  ​Pareto diagram. | |  | d.  ​Simpson,s chart. | |  |  |  |

* **Question 26**

0 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | A display used to compare the frequency, relative frequency or percent frequency of two categorical variables is a​ |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | d.  ​pie chart. | | Answers: | a.  ​stem-and-leaf display. | |  | b.  scatter diagram. | |  | c.  ​stacked bar chart. | |  | d.  ​pie chart. | |  |  |  |

* **Question 27**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | The relative frequency of a class is computed by |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | a.  dividing the frequency of the class by the sample size. | | Answers: | a.  dividing the frequency of the class by the sample size. | |  | b.  dividing the midpoint of the class by the sample size. | |  | c.  dividing the frequency of the class by the midpoint. | |  | d.  dividing the sample size by the frequency of the class. | |  |  |  |

* **Question 28**

0 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | In a cumulative relative frequency distribution, the last class will have a cumulative relative frequency equal to |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | c.  the total number of elements in the data set. | | Answers: | a.  one. | |  | b.  zero. | |  | c.  the total number of elements in the data set. | |  | d.  the total of classes in the data set. | |  |  |  |

* **Question 29**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | Which of the following is a graphical summary of a set of data in which each data value is represented by a dot above the axis? |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | c.  Dot plot | | Answers: | a.  Box plot | |  | b.  Crosstabulation | |  | c.  Dot plot | |  | d.  Histogram | |  |  |  |

* **Question 30**

0.5 out of 0.5 points

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | | |
|  | A survey of 800 college seniors resulted in the following crosstabulation regarding their undergraduate major and whether or not they plan to go to graduate school.   |  |  |  |  |  | | --- | --- | --- | --- | --- | | **Undergraduate Major** | | | | | | **Graduate School** | **Business** | **Engineering** | **Others** | **Total** | | Yes | 70 | 84 | 126 | 280 | | No | 182 | 208 | 130 | 520 | | **Total** | 252 | 292 | 256 | 800 |   ​  Of those students who are majoring in business, what percentage plans to go to graduate school? |  |  |  |
| |  |  | | --- | --- | | Selected Answer: | b.  27.78 | | Answers: | a.  70.00 | |  | b.  27.78 | |  | c.  8.75 | |  | d.  72.22 | |  |  |  |

Wednesday, February 12, 2020 2:28:02 PM PST