Biostatistics

Archive

Lecture 1 & 2

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لجنة الطب والجراحة

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1. Data of age resembles the following type of variables:
a. Continuous
b. Discrete
c. Nominal
d. Ordinal

<p align="right">Answer: a. Continuous</p>

2. A crowd of 20 people was sorted into groups based on their ABO blood subgroups. Such groups contain _____ variables.
a. Continuous
b. Discrete
c. Nominal
d. Ordinal

<p align="right">Answer: c. Nominal</p>

3. The number of your fingers is considered a(an):
a. Constant
b. Nominal variable
c. Ordinal variable
d. Metric variable

<p align="right">Answer: a. Constant</p>

4. Data of family size resembles the following type of variables:
a. Continuous
b. Discrete
c. Nominal
d. Ordinal

<p align="right">Answer: b. Discrete</p>

5. Data of cholesterol level resembles the following type of variables:
a. Continuous
b. Discrete
c. Nominal
d. Ordinal

<p align="right">Answer: a. Continuous</p>

6. Data of time spent on waiting resembles the following type of variables:
a. Continuous
b. Discrete
c. Nominal
d. Ordinal

<p align="right">Answer: a. Continuous</p>

7. The type of the information (number of kidneys in the population) is? Select one
a. Quantitative discrete
b. Constant data
c. Qualitative nominal
d. Quantitative continuous
e. Qualitative Ordinal

Answer: b. Constant data

8. Number of students is a? Select one
a. Nominal data
b. Ordinal data
c. Continuous data
d. Discrete data

Answer: d. Discrete data

9. All of the following about discrete quantitative values are true EXCEPT:
a. Mathematical operations can be applied to it
b. Its values do not have to be integers
c. It possesses interval data
d. Heart rate is an example of this data
e. It is obtained by counting

Answer: B. Its values do not have to be integers

10. Number of patients is considered a(an):
a. Nominal data
b. Interval data
c. Ordinal data
d. Continuous data
e. Discrete data

Answer: E. Discrete data

11. Discrete variable is:
a. Its value is not necessarily limited to the set of integers
b. Its value is limited to the set of integers
c. Its value is not limited to the set of integers
d. Its value is not real number
e. It is best represented diagrammatically by histograms

Answer: B. Its value is limited to the set of integers

Biostatistics

12. Obtaining sound generalized information about population depending on the evidence of the sample is termed:
a. Presentation of data
b. Descriptive biostatistics
c. Confidence interval
d. Inferential biostatistics
e. Collection of data

Answer: D. Inferential biostatistics

13. One of the following statements is INCORRECT regarding frequency distributions:
a. There is always a termination or end for quantitative continuous data
b. Measurements are like fingerprints, no two are exactly alike
c. Continuous distributions are formed because everything in the world that can be measured varies to some degree
d. The more precise the instrument, the more variation will be detected
e. The degree of variation will depend on the precision of the measuring instrument used

Answer: A. There is always a termination or end for quantitative continuous data.

14. Educational level is considered:
a. Quantitative continuous variable
b. Quantitative discrete variable
c. Qualitative nominal variable
d. Qualitative ordinal variable
e. Interval variable

Answer: d. Qualitative ordinal variable

15. Number of bacteria, the type of variable is:
a. Quantitative continuous variable
b. Quantitative discrete variable
c. Qualitative nominal variable
d. Qualitative ordinal variable
e. Interval variable

Answer: B. Quantitative discrete variable

16. Type of data in biochemistry (never, always, sometimes...) is considered:
a. Ordinal   b. Nominal
c. Continuous   d. Discrete

Answer: A. Ordinal

17. Type of data in Medical specialty is:
a. Ordinal   b. Nominal
c. Continuous   d. Discrete

Answer: B. Nominal

18. The following table shows the distribution of infants attending a primary health care center in one month based on their height and sex, as follows:

|Height (in inches) |Male| Female |

50 - 55	10	15
55 - 60	20	25
60 - 65	30	35
65 - 70	25	20
70 - 75	15	10

The types of observations in this table are:
a. Both discrete
b. Both ordinal
c. Height is continuous and sex is nominal
d. Height is continuous and sex is ordinal
e. Height is discrete and sex is nominal

Answer: C. Height is continuous and sex is nominal

19. Normal distribution curve is a special form of:
a. Frequency polygon
b. Bell- shaped histogram
c. Skewed histogram
d. Rectangular histogram

Answer: a. Frequency polygon

20. Bar charts are suitable for representing data of the following subtype(s) exclusively:
a. Qualitative data
b. Quantitative data
c. Qualitative and quantitative discrete data
d. Qualitative and quantitative continuous data

Answer: c. Qualitative and quantitative discrete data

21. Pie chart is consistent with all of the following except:
a. It is used to represent quantitative data only
b. It displays data as percentages
c. "pie" comes from the name of each divided sector
d. It can only represent one variable at a time

Answer: a. It is used to represent quantitative data only

22. As per frequency distribution tables, one of the following is not really necessary for constructing such a table:
a. Class interval   b. Width
c. Upper and lower limits   d. Mean value

Answer: d. Mean value

23. By looking at the following set of data: (67, 67, 67, 70, 70, 61, 66, 64, 65, 63) the representing histogram will be:
a. Symmetrical
b. Uniform
c. Positively Skewed
d. Negatively Skewed

Answer: d. negatively skewed

24. By looking at the following set of data: (67, 67, 67, 70, 70, 61, 66, 64, 65, 63) the data are:
a. Bimodal
b. Skewed
c. trimodal
d. Of no mode

Answer: b. Skewed

25. Number of class intervals should be between:
a. 5- 15
b. 5- 25
c. 1- 15
d. None of the above

Answer: a. 5- 15

26.Imports and exports of the Jordanian economy over the past 3 years can be represented the best by:
a. Simple bar chart
b. Stacked bar chart
c. Clustered bar chart
d. Any of the above

Answer: c. Clustered bar chart

27. The optimal number of class intervals is:
a. Less than 5
b. More than 15
c. 5- 15
d. Any of the above

Answer: c. 5- 15

28. Family income over a year can be represented the best by:
a. Bar chart
b. Histogram
c. Line graph
d. Frequency polygon

Answer: c. Line graph

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In a grouped frequency distribution, the class intervals and their corresponding frequencies are given as follows:

Class Interval Frequency

10 - 20 5

20 - 30 8

30 - 40 12

40 - 50 10

50 - 60 6

Answer questions 13- 18:

29. The cumulative frequency for the class interval 20 – 30 will be:

a. 8

b. 13

c. 19.5 %

d. 0.195

e. 31.7%

f. 0.317

Answer: b. 13

30. The relative frequency for the class interval 20 – 30 will be:

a. 8

b. 13

c. 19.5 %

d. 0.195

e. 31.7%

f. 0.317

Answer: d. 0.195

31. The percent cumulative frequency for the class interval 20 – 30 will be:

a. 8

b. 13

c. 19.5 %

d. 0.195

e. 31.7%

f. 0.317

Answer: e. 31.7%

32. The cumulative relative frequency for the class interval 20 – 30 will be:

a. 8   b. 13

c. 19.5 %   d. 0.195

e. 31.7%   f. 0.317

Answer: f. 0.317

33. The best graph to display patients' temperature chart is? Select one
a. Clustered bar chart
b. Stacked bar chart
c. Pie chart
d. Line graph
e. Histogram

Answer: d. Line graph

34. For a quantitative discrete variable interval of family size (3-5), the width is?
Select one
a. 4.5
b. 5
c. 4
d. 2
e. 3

Answer: e. 3

35. 17. In this set of data 4 9 6 3 1 7, which of the following is the mean? Select one
a. 5.5
b. 5   c. 6
d. 8   e. 4.5

Answer: b. 5

36. For a quantitative continuous variable interval of weight in kg (60- 70), the width is? Select one
a. 9
b. 10
c. 8
d. 11
e. 9.5

Answer: d. 11

37. For quantitative continuous variable interval of weight in kg (60- 70). the real limit is? Select one:
a. 60-70
b. 61-59
c. 60.5-70.5
d. 59.5-70.5
e. 59.5 – 70

Answer: d. 59.5- 70.5,
To find the real limit, we add 0.5 to the upper limit and subtract 0.5 from the lower limit

38. A distribution with a tail that goes to the right is called:
a. Positively skewed
b. Unimodal
c. Negatively skewed
d. None of the above

Answer: A. Positively skewed

39. In frequency polygon, the point corresponding to the reading on the X-axis is:
a. The width of the corresponding interval
b. Lower limit of the corresponding interval
c. Upper limit of the corresponding interval
d. Midpoint of the corresponding interval
e. The frequency of each interval

Answer: D. Midpoint of the corresponding interval

40. The best graphical representation of the COVID- 19 in Jordan in the past 5 months is:
a. Line graph
b. Histogram
c. Frequency polygon
d. Pie chart
e. Bar graph

Answer: A. Line graph

41. Linear representation of frequency distribution by joining the midpoint of class intervals is:
a. Bar chart
b. Frequency distribution table
c. Pie chart
d. Frequency polygon
e. Histogram

Answer: D. Frequency polygon

42. A distribution with a tail that goes to the left is called:
a. Positively skewed
b. Unimodal
c. Negatively skewed
d. None of the above

Answer: C. Negatively skewed

43. Sales of a company over the past ten years is best represented by:
a. line graph   b. bar chart
c. histogram   d. pie chart

Answer: A. line graph