socrative
A showbie PRODUCT

Name _____
Date _____

DA-II

Score _____

1. Which is an example of a sample?

0.5 POINTS

(A) All students in India
(B) Students in one college
(C) Entire population of a country
(D) None

2. A variable that takes numeric values is called:

1 POINT

(A) Qualitative
(B) Quantitative
(C) Nominal
(D) Ordinal

3. Data like eye color belongs to which scale?

1 POINT

(A) Nominal
(B) Ordinal
(C) Interval
(D) Ratio

4. Which scale has meaningful zero?

1 POINT

(A) Nominal
(B) Interval
(C) Ratio
(D) Ordinal

5. Which is an example of discrete data?

1 POINT

(A) Weight

(B) Height

(C) Number of children

(D) Time

6. What is descriptive statistics used for?

1 POINT

(A) Making predictions

(B) Summarizing data

(C) Hypothesis testing

(D) Regression

7. Inferential statistics deals with:

1 POINT

(A) Summarizing data

(B) Drawing conclusions from sample to population

(C) Creating graphs

(D) Descriptive analysis

8. Parameter refers to:

1 POINT

(A) Sample statistic

(B) Population characteristic

(C) Data type

(D) None

9. A statistic is:

1 POINT

(A) Population value

(B) Sample-based measure

(C) Random variable

(D) Unknown

10. The set of all possible outcomes is called:

1 POINT

(A) Event

(B) Sample Space

(C) Random variable

(D) None

11. Two events that cannot happen together are:

1 POINT

(A) Independent

(B) Mutually Exclusive

(C) Conditional

(D) None

12. If A and B are independent, then:

1 POINT

(A) $P(A \cap B) = P(A) + P(B)$

(B) $P(A \cap B) = P(A) \cdot P(B)$

(C) $P(A \cap B) = 0$

(D) None

13. Which formula represents union of two events?

1 POINT

(A) $P(A \cup B) = P(A) + P(B)$

(B) $P(A \cup B) = P(A) + P(B) - P(A \cap B)$

(C) $P(A \cup B) = P(A) \cdot P(B)$

(D) None

14. What is the probability range?

1 POINT

(A) -1 to 1

(B) 0 to 10

(C) 0 to 1

(D) 1 to 100

15. The probability of sure event is:

1 POINT

(A) 0

(B) 1

(C) 0.5

(D) None

16. Which is an example of dependent events?

1 POINT

(A) Tossing two coins

(B) Drawing cards without replacement

(C) Rolling two dice

(D) None

17. The probability of an impossible event is:

1 POINT

(A) 0

(B) 1

(C) 0.5

(D) None

18. If P(A)=0.4, P(B)=0.3 and A,B mutually exclusive, P(A∪B)=

1 POINT

(A) 0.7

(B) 0.12

(C) 0.1

(D) None

19. Conditional probability P(A|B) is:

1 POINT

(A) $\frac{P(A \cap B)}{P(A)}$

(B) $\frac{P(A \cap B)}{P(B)}$

(C) $P(A) + P(B)$

(D) None

20. Which law uses conditional probability?

1 POINT

(A) Addition law

(B) Bayes' theorem

(C) Multiplication law

(D) None

21. Joint probability means:

1 POINT

(A) $P(A) + P(B)$

(B) Probability of A and B together

(C) $P(A|B)$

(D) None

22. If two events are mutually exclusive, P(A∩B)=

1 POINT

(A) 1

(B) 0

(C) $P(A) \cdot P(B)$

(D) None

23. Which is a complement event of A?

1 POINT

(A) A∪B

(B) Not A

(C) A∩B

(D) None

24. In Bayes theorem, denominator represents

1 POINT

(A) Prior probability

(B) Marginal probability

(C) Likelihood

(D) Posterior probability

25. Which application uses Bayes' theorem?

1 POINT

(A) Hypothesis testing

(B) Spam filtering

(C) Standard deviation

(D) Mean calculation

26. Which is a discrete distribution?

1 POINT

(A) Normal

(B) Binomial

(C) Uniform

(D) Exponential

27. Which is continuous distribution?

1 POINT

(A) Binomial

(B) Normal

(C) Poisson

(D) Bernoulli

28. Normal distribution is also called

1 POINT

(A) Gaussian

(B) Poisson

(C) Uniform

(D) None

29. Standard normal distribution mean is

1 POINT

(A) 1

(B) 0

(C) n

(D) none

30. Which distribution is symmetric?

1 POINT

(A) Normal

(B) Poisson

(C) Bernoulli

(D) None

31. Which of the following is an example of joint probability?

1 POINT

(A) Probability of getting 2 on a die

(B) Probability of getting a red card AND an ace

(C) Probability of rain tomorrow

(D) Probability of heads on a coin

32. Null hypothesis symbol is:

1 POINT

(A) H_1

(B) H_0

(C) H_A

(D) None

33. Significance level α usually is:

1 POINT

(A) 0.05

(B) 0.5

(C) 0.005

(D) None

34. p-value less than α means

1 POINT

(A) Accept H_0

(B) Reject H_0

(C) Fail to reject H_0

(D) None

35. Type I error occurs when:

1 POINT

(A) Rejecting true H_0

(B) Accepting false H_0

(C) Both

(D) None

36. Type II error is:

1 POINT

(A) Rejecting true H0

(B) Accepting false H0

(C) None

(D) Both

37. CLT states sample means follow

1 POINT

(A) Uniform distribution

(B) Normal distribution

(C) Binomial distribution

(D) None

38. Confidence interval gives:

1 POINT

(A) Exact population value

(B) Range of plausible values

(C) Hypothesis

(D) None

39. Skewness measures:

1 POINT

(A) Peakness

(B) Symmetry

(C) Spread

(D) None

40. Kurtosis measures:

1 POINT

(A) Peakness

(B) Symmetry

(C) Spread

(D) None

41. Which of the following is NOT a measure of central tendency?

1 POINT

(A) Mean

(B) Median

(C) Mode

(D) Variance

42. Which measure of central tendency is most affected by extreme values?

1 POINT

(A) Mean

(B) Median

(C) Mode

(D) Geometric Mean

43. Which of the following is a measure of dispersion?

1 POINT

(A) Mean

(B) Range

(C) Median

(D) Mode

44. Which of the following is NOT a part of descriptive statistics?

1 POINT

(A) Measures of central tendency

(B) Hypothesis testing

(C) Measures of dispersion

(D) Data visualization

45. Which measure divides data into four equal parts?

1 POINT

(A) Percentiles

(B) Quartiles

(C) Deciles

(D) Median

46. Which of the following diagrams is commonly used in descriptive statistics?

1 POINT

(A) Pie chart

(B) Histogram

(C) Box plot

(D) All of the above

47. What does a box plot show?

1 POINT

(A) Only mean

(B) Range, quartiles, and median

(C) Only mode

(D) None

48. Which of the following is NOT true about the median?

1 POINT

(A) It is affected by extreme values.

(B) It divides the data into two halves.

(C) It can be used for ordinal data.

(D) It is a measure of central tendency.

49. What does a histogram represent?

1 POINT

(A) Frequency distribution of continuous data

(B) Central tendency

(C) Correlation

(D) Cumulative frequency

50. Interquartile Range (IQR) is defined as:

1 POINT

(A) $Q_3 - Q_1$

(B) $Q_2 - Q_1$

(C) $Q_4 - Q_2$

(D) $Q_1 - Q_0$

51. A histogram is used for

1 POINT

(A) Categorical data

(B) Continuous data frequency distribution

(C) Correlation analysis

(D) Time series data

52. Which plot is used to show the spread and outliers of data

0.5 POINTS

(A) Pie Chart

(B) Box Plot

(C) Line Chart

(D) Area Chart

53. What does the height of a bar in a bar chart represent

0.5 POINTS

(A) Mean value

(B) Frequency or value of a category

(C) Standard deviation

(D) Median

54. Which graph is best suited to observe trends over time

0.5 POINTS

(A) Line Chart

(B) Pie Chart

(C) Box Plot

(D) Histogram

55. A scatter plot is mainly used for

0.5 POINTS

(A) Displaying mean values

(B) Showing the relationship between two variables

(C) Showing proportions

(D) Summarizing categories

56. What is the difference between a bar chart and a histogram

0.5 POINTS

(A) Bar charts are for categorical data, histograms are for continuous data.

(B) Both represent continuous data.

(C) Both represent categorical data.

(D) Histograms have gaps between bars.

57. The number of cars in a parking lot is an example of:

0.5 POINTS

(A) Continuous data

(B) Nominal data

(C) Discrete data

(D) Ordinal data

58. Customer satisfaction ratings (e.g., Poor, Average, Good) are an example of:

0.5 POINTS

(A) Nominal data

(B) Ordinal data

(C) Continuous data

(D) Interval data

59. Which type of data can take any value within a range?

0.5 POINTS

(A) Nominal data

(B) Discrete data

(C) Continuous data

(D) Ordinal data

60. Interval data differs from ratio data because:

0.5 POINTS

(A) Interval data has a true zero point

(B) Ratio data lacks a meaningful zero

(C) Interval data lacks a true zero point

(D) Ratio data is not numeric