STA301

Quiz for Mid-Term

ABSTRACT

This comprehensive collection of notes is accurately crafted to empower students to excel academically, ensuring they achieve a minimum of 80% marks in their examinations. The content is organized with clarity and precision, focusing on key concepts, critical analyses, and practical applications tailored to the syllabus. These notes serve as a reliable resource for both thorough preparation and last-minute revision. Designed to inspire confidence and mastery, this guide is an essential tool for students striving for academic excellence.

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Statistics and Probability

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1. In a frequency distribution the categories must (be mutually exclusive)
2. In a symmetrical distribution 5^{th} decile equals to: (mean, median, mode, all of these)
3. In statistics, conducting a survey means (collecting information from elements)
4. When the distribution is highly skewed, then which average is appropriate? (median)
5. Selection of football team for FIFA World Cup is called as? (purposive sampling)
6. Formula for Co-efficient of Quartile Deviation is : $\frac{Q_3 - Q_1}{Q_3 + Q_1}$
7. Standard deviation is calculated from the Harmonic Mean: (Never)
8. Find the mean of the values 2,4,6,8. (5)
9. A coin is tossed and a single 6-sided die is rolled. Find the probability of landing on the head side of the coin and rolling a 3 on the die. (1/6)
10. What is probability of drawing two clubs from a well shuffled pack of 52 cards? (1/26)
11. The minimum value in the class limit is called: (lower limit)
12. If A, B and C are three events and only one event of them must occur then P(A) + P(B) + P(C) P(S)=1
13. If the co-efficient of dispersion for data set "A" is 0.7 and for data set "B" is 0.5. it indicates that: (Spread of Data set "A" is greater than Data set "B")
14. Given the N values in a series, he geometric mean is: (The Nth root of the product of N positive values)
15. Relation between arithmetic, geometric and harmonic mean is: (Arithmetic Mean ≥ Geometric Mean ≥ Harmonic Mean)
16. In a cumulative frequency polygon, the cumulative of each class is plotted against (upper class boundary)
17. An even that contains more than one sample points is called: (compound event)
18. If A = {10, 11} them which of the following is power set of A? {{0}, {10}, {11}, {10, 11}}
19. Statistics deals with (Aggregates of facts)
20. First moment about origin is always equal to: (Mean)
21. From a symmetrical data set mean value is 150 and standard deviation 25. 99.73 % (approximately all) values will lie between (75,225)
22. Second moment about mean will be equal to: (Variance)
23. If a box contains six red, three blue and five pink ties then probability of blue ties will be equal to: (3/14)
24. Find the number of subsets of the following set. {x I x is a day of the week} (128)
25. Which scale of measurement is more suitable in the following example? The people are categorized according to their level of education. (Ordinal)
26. In scatter diagram, the variable plotted along y-axis is: (dependent variable)
27. Relative measure of dispersion for range is: (co-efficient of dispersion)

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28. For which of the following measures, we take deviations around mean in square form? (standard deviation)
29. Which of the following is not a characteristic of the arithmetic mean? (Fifty percent of the observations are larger than the median)
30. Deviation taken form mean can be: (both negative and positive)
31. Kurtosis is used to represent the degree of peakedness/flatness about a: (Unimodal distribution)
32. If coefficient of skewness is equal to "0" then distribution will be: (symmetrical)
33. A card is drawn from a pack of 52 cards. The probability of getting a queen of club or a king of heart is: (1/26)
34. If median>mid-quartile range>midrange then distribution will be: (negatively skewed)
35. Ranking scale also include the properties of which scale? (normal scale)
36. Let A and B are two independent events. If P(A)=0.3 and P(B)=0.5 then what will be probability of A intersection B? (0.15)
37. The value of the middle term in a ranked (ordered) data set is called the: (median)
38. If P (A)=0.7 and P (B)=0.2 then find P (A ∪ B) where A and B are mutually exclusive events. (0.9)
39. Histogram can be drawn only for: (discrete frequency distribution)
40. Adding all the squared deviation taken from mean and dividing by the number of observations, we get (Variance)
41. The value of 10C9: (10)
42. Empirical rule is considered when the data is: (symmetrical)
43. Which method is used for obtaining the relative frequencies? (dividing the frequency by the total frequency)
44. In statistics, conducting a survey means (collecting information from elements)
45. The height of a student is 60 inches. This is an example of _____? (continuous data)
46. Which of the following Measure of averages is affected by extreme (very small or very large) values in the data set? (Arithmetic Mean)
47. Which of the following is greater than median for a symmetrical distribution: (7^{th} Decile)
48. Historigram and Histogram are: (not same)
49. Pearson coefficient of skewness is defined as: (Mean-Mode)/SD
50. Relative measure of dispersion can be used for: (comparison of two data sets)
51. In a box and Whisker plot, left end of the box is referred to as: (First Quartile)
52. A standard check of 52 cards is shuffled. What is the probability of choosing a card which is not a diamond. (39/52)
53. The probability of drawing a red Jack from well-shuffled pack of 52 playing cards is: (2/52)
54. Quartile deviation is used as a measure of disersion when we use _____ as a measure of central tendency. (median)
55. The distribution will be symmetrical. If: (median=midquartilerange=midrange)
56. In symmetrical distribution: (mean = median = mode)

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57._____ Is the measure of average which can have more than one value: (Geometric mean)

58. The amount of hump of a distribution is called: (Kurtosis)

59. In a Venn diagram, the overlap between two circles represents: (the intersection of two sets)

60. When we toss a fair coin 4 times, the sample space consists of _____ points. (16)

61. Which of the following is measure of central tendency? (mean, harmonic mean, geometric mean, all of these)

62. If the co-efficient of dispersion for data set "A" is 0.7 and for data set "B" is 0.5. It indicates that: (spread of Data set "A" is greater than Data set "B")

63.5C5 equals to: (1)

64. According to empirical rule, approximately 68% of the measurements will fail within: (Mean-S.D, Mean + S.D.)

65. Deviations taken from mean can be: (both negative and positive)

66. Median (±) Quartile Deviation contains approximately: (50 % of the data)

67. When a researcher want to compare intensity of a symptoms when different doses are administered. In thus case, "different doses" will be treated as: (independent variable)

68. Correlation COEFFICIENT measures: (degree of linear relationship between two random variables)

69.A fair dice is rolled. Probability of getting even face given that face is less than 5 is given by: (1/2)

70. Which one id the formula of mid range: $(X_o + X_m)/2$

71. Ranking scale also include the properties of which scale? (Nominal Scale)

72. Which of the following is NOT one of the scales of measurement discussed in the text? (proportional)

73. In a week the price of a bag of rice were 350.280.340.290.320.310.300. the mid range is (315)

74. Value of Harmonic mean depends on (all of the observations)

75. In a Box and Whisker plot, if the median line is closer to the left of the box then distribution will be: (positively skewed)

76. From the following table, what is the Upper limit of the 3 class?

Class	Frequency
30.0 - 32.9	2
33.0 – 35.9	4
36.0 – 38.9	14
39.0 – 41.9	8
42.0 - 44.9	2

(38.9)