Statistics with Computer Application

I.   Multiple Choice: Choose the correct answer. Write the letter of the correct answer in the Test Booklet.

1.   What is a histogram used for?
    a.   To compare means of different groups
    b.   To show the relationship between two variables.
    c.   To display the distribution of a single quantitative variable.
    d.   To display hierarchical data.
2.   What is the range in statistics?
    a.   The average value of a dataset.
    b.   The middle value of a dataset.
    c.   The difference between the highest and lowest values in a dataset.
    d.   The most frequent value in a dataset.
3.   What is a categorical variable?
    a.   A variable that can take on any value within a range.
    b.   A variable that represents categories or groups.
    c.   A variable that is always numerical.
    d.   A variable that can only take two values.
4.   What is the mean of the following numbers? 10, 39, 71, 39, 76, 38, 25
    a.   42
    b.   39
    c.   42.5
    d.   35.5
5.   What number would you divide by to calculate the mean of 3, 4, 5, and 6?
    a.   6
    b.   3
    c.   5
    d.   4
6.   What measure of central tendency is calculated by adding all the values and dividing the sum by the number of values?
    a.   Median
    b.   Mean
    c.   Mode
    d.   Typical value
7.   The mean of four numbers is 71.5. If three of the numbers are 58, 76, and 88, what is the value of the fourth number?
    a.   64
    b.   60
    c.   76
    d.   82
8.   What is the median score achieved by a student who recorded the following scores on 10 math quizzes? 68, 55, 70, 62, 71, 58, 81, 82, 63, 79
    a.   68
    b.   71
    c.   69
    d.   79
9.   A set of four numbers that begin with the number 32 is arranged from smallest to largest. If the median is 35, which of the following could possibly be the set of numbers?
    a.   32, 32, 36, 38
    b.   32, 35, 38, 41
    c.   32, 34, 36, 35
    d.   32, 36, 40, 44

10. What is the term used to describe the distribution of a data set with one mode?
    a. Multimodal
    b. Unimodal
    c. Nonmodal
    d. Bimodal

II.   Identify the data set's level of measurement of the following: (nominal, ordinal, interval, ratio):
11. height of each student in a third-grade class.
12. eye color of each student.
13. letter grade of students in a statistics class
14. percentage that each student got correct on the science test.
15. list of temperatures in degrees Celsius for the month of May.
16. list of the top 50 greatest movies of all time.
17. track of the breeds of dogs.
18. birth year of employees at SKSU.
19. number of students in the classroom.
20. weight of an object.

III.   Problem Solving: Determine what is/are being asked.

21. The following data lists the midterm scores received by 50 students in a chemistry class:

45	85	92	99	37	68	67	78	81	25
97	100	82	49	54	78	89	71	94	87
21	77	81	83	98	97	74	81	39	77
99	85	85	64	92	83	100	74	68	72
65	84	89	72	61	49	56	97	92	82

    a. Calculate the mean median, and mode.
    b. Construct a frequency distribution table with class limit width equal to 10
    c. Calculate the mode, median, and mean of data for the frequency table.

Prepared by:

Lowell D. Espinosa