Republic of the Philippines
SULTAN KUDARAT STATE UNIVERSITY
College of Computer Studies
Isulan Campus, Isulan, Sultan Kudarat

IT 222 – Quantitative Methods
MIDTERM EXAMINATION
2nd Semester SY 2024-2025

Name: _____ **Contact No:** _____

General Instructions:

1. Write all your answers in the provided space.
2. Write neatly and legibly using a black or a blue pen.
3. You may use the blank spaces in your questionnaire for your computation.

Test I: Modified True or False (30 pts, 3 pts each)
Instruction: Write **TRUE** if the statement is correct or write **FALSE** if the statement is incorrect in the space provided before the number. If the statement is FALSE, change the underlined word or phrase to make the statement correct. Write the **CORRECT AND COMPLETE** statement in the space provided below each item.

_____ 1. Hair color is an example of a continuous data.

_____

_____ 2. Data type is one factor to consider in choosing the appropriate analysis tool to use.

_____

_____ 3. In encoding data in a spreadsheet, it is best practice to place variable names on the columns instead of rows.

_____

_____

Table 1: Students are grouped into three sections. They were given the same set of exam. The table shows the average exam scores of each section.

	Section 1	**Section 2**	**Section 3**
Mean	84	86	89
Standard Deviation	4	3	5

_____ 4. In Table 1, Section 1 has the highest mean of the three sections.

_____

_____ 5. In Table 1, Section 2 has consistent similar scores.

_____

_____ 6. Faulty instrument for collecting data is one of the reasons of inaccurate data.

_____

_____ 7. Quantitative Methods focus more on answering the how's and why's of a phenomena.

_____

_____ 8. The advantage of mean is that it not affected by outliers.

_____

_____ 9. A very high positive observation (too far away from the rest of the data) will pull the mean towards the left.

_____

_____

_____ 10. If the mean is lower than the median, the data is positively skewed.

_____

Test II: Multiple Choice (20 pts, 2 pts each)
Instruction: Write the letter corresponding to your best choice of answer. Write clearly in **CAPITAL LETTERS**.

_____ 11. Which of the following is not a scale of measurement?
A. nominal
B. ordinal
C. proportional
D. ratio

_____ 12. Which of the following is defined as is the sum of all observations divided by the total number of observations?
A. mean
B. median
C. mode
D. range

_____ 13. Which of the following is defined as the numerical description of a sample?
A. population
B. parameter
C. sample
D. statistic

_____ 14. Which of the following measures of central location or measures of variability is NOT sensitive to outliers?
A. mean
B. median
C. range
D. variance

Table 2: The following data are the mean and standard deviation of employee monthly salaries from three companies.

	Company A	**Company B**	**Company C**
Mean	48,000	53,000	50,000
Standard Deviation	10,000	8,000	6,000

_____ 15. Given the following information in Table 2, which company gives the highest monthly salary on the average?
A. Company A
B. Company B
C. Company C
D. All company are the same

_____ 16. If the mean of Data 1 is 5.5 and the mean of Data 2 is 10.6, which of the following is true?
A. Most of the observations of both Data 1 and Data 2 are near 5.5.
B. Most of the observations of both Data 1 and Data 2 are near 10.6.
C. Data 1 observations tend to be higher than observations in Data 2.
D. None of the above.

_____ 17. If the mean of Data 1 is 5.5 and the mean of Data 2 is 10.6, which of the following is true if the true population mean is 6.2?
A. Data 1 has better accuracy.
B. Data 2 has better accuracy.
C. Data 1 has better precision.
D. Data 2 has better precision.

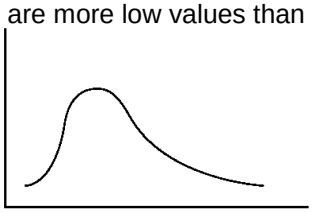
_____ 18. If the standard deviation of Data 1 is 2.5 and the standard deviation of Data 2 is 1.6, which of the following is true?
A. Data 1 has better accuracy.
B. Data 2 has better accuracy.
C. Data 1 has better precision.
D. Data 2 has better precision.

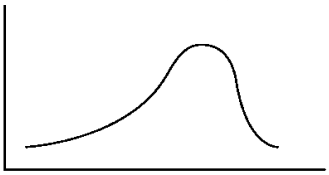
_____ 19. Which of the following instances is the mean not appropriate to use as a measure of central location?

A. If the data has a normal distribution.
B. If the data is categorical.
C. If there is existence of outlier.
D. If there is less than 30 observation

_____ 20. Which of the following is the graph of the curve if there are more low values than high values?

A. 

B. 

C. 

Test III: Essay (30 pts)
Instruction: Answer the following questions comprehensively. Write your answer on the back of this page.

21. What are the levels of measurement? Define and give examples of each. (5 pts)

22. What are the measures of central location? Illustrate each one by giving some examples. Explain how you can use the measures of central location to check if your data is symmetric. (10 pts)

23. Give an example of a research question.
    - Identify the dependent variable and the independent variable(s) needed to answer the question. (5 pts)
    - Identify the type of data and level of measurement for each variables. (5 pts)
    - Identify the appropriate test to use. (5 pts)

********END OF EXAM*******

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Course Number/Description: IT 222 – Quantitative Methods Term: Midterm Semester: 2nd Semester – SY 2024-2025

Prepared by: Kyrene L. Dizon Date Submitted: _____

TABLE OF SPECIFICATIONS

Topics/Content	Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation	No. of Items	Total Score
Quantitative Methods and Descriptive Statistics	**3** (7)	**7** (1,12,14)	**7** (9,15,16)	**8** (2,10,17)	**13** (4,5,20, 21)	**8** (8,21)	15	**46**
Data Types and Data Preparation	**4** (22, 23)	**4** (11,13)	**7** (3,22,23)	**7** (6,18,19)	**6** (22, 23)	**6** (22, 23)	8	**34**
Total Score	**7**	**11**	**14**	**15**	**19**	**14**	23	**80**

Summary:

	Item Nos.	No. of Points
Test I: Modified True or False	1 – 10	30
Test II: Multiple Choice	11 – 20	20
Test III: Essay	21 – 23	30
Total Score		80

Checked by:

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