

Value Added Course on SPSS
Classroom Test- 24th March, 2024

NAME: _____

REGISTER NUMBER: _____

Instructions: For the questions below, please choose the correct answer from the options provided. For each question, there is only one right answer. You can either tick, circle or underline the answer you chose. There is no negative marking, so make sure you attempt all the questions.

1. Measures of central tendency and measures of dispersion are best examples of what class of statistical techniques? Choose the most appropriate option out of the four options provided.

- A. Population statistics
B. Inferential statistics
C. Sampling statistics
D. Descriptive statistics

2. Which one of these statistics is unaffected by outliers?

- A. Mean
B. Interquartile range
C. Standard deviation
D. Range

3. Pick the choice that best completes the following sentence.

“If a relationship between two variables is called statistically significant, it means the researchers think the variables are _____”

- A. related in the population represented by the sample.
B. not related in the population represented by the sample.
C. related in the sample due to chance alone.
D. very important

4. Gender is one of the most commonly researched variables in social sciences. Gender is a categorical variable with male and female as categories. In terms of measurement and data analysis, what type of measure/data is gender?

- A. Nominal
B. Ordinal
C. Interval
D. Ratio

5. The process of transforming an abstract construct (or variable) into something that is measurable for research is known as _____. Choose the correct answer to fill in the blank.

- A. Generalization
B. Transformation
C. Operationalization
D. Standardization

6. Which one of the following is NOT a necessary criterion for conducting parametric tests for inferential statistics?
- A. The sample size has to be large enough
 - B. The data has to be collected using probability sampling techniques
 - C. The data has to be in interval (or ratio) level
 - D. The data has to be normally distributed
7. In an ideal normally distributed data set, what is the relationship between the mean, median and mode?
- A. Mean is higher than median and mode
 - B. Mode is lower than mean and median
 - C. Mean, median and mode are equal
 - D. Only mean and median are equal
8. Independent sample t-test is used for what kind of research design from the options below?
- A. Between subject design
 - B. Within subject design
 - C. Factorial design
 - D. Longitudinal design
9. How do we decide if a dataset is normally distributed?
- A. Calculate skewness and kurtosis values to examine distribution
 - B. Run the Shapiro wilk test of normality
 - C. Visually examine the dataset through histograms and Q-Q plots.
 - D. All three options are correct.
10. Consider the two statements below and determine if they are true.
- I. Researchers can choose between conducting parametric or non parametric statistical tests based on their research question.
 - II. Non parametric tests are considered equally rigorous to parametric tests since both uses mean instead of median.
- A. Only statement I is correct
 - B. Only statement II is correct
 - C. Both I and II are correct
 - D. Both I and II are incorrect
11. In Inferential statistics, the F value (or F statistic) is associated with which of the following parametric tests?
- A. Independent samples t test
 - B. Pearson's correlation test
 - C. One way ANOVA test
 - D. Standard deviation
12. The confidence at which the results of a study can be generalized to the population is known as the significance value. The significance value is denoted by which of the following letters?
- A. T value
 - B. P value
 - C. R value
 - D. F value

13. Which of the following measures of central tendency is used in conducting inferential parametric tests?

A. Mean

B. Median

C. Mode

D. Range

14. _____ is a set of individuals selected from a population, usually intended to represent the population in a research study. Fill in the blank

A. Operationalization

B. Target

C. Sample

D. Research cycle

15. What is the full form of SPSS?

A. Statistical Program for the Social Sciences

B. Statistical Package for the Social Sciences

C. Special Program for Statistics and Sciences

D. Statistical Program for Science and Statistics

Questions 16-25 are based on the following dataset

The data set below contains information about 15 people working in an office. Details that have been provided are; name (initials), age (in years), gender, total experience (in years) and Socio economic status (SES). Answer the questions based on the dataset.

Name-Initials	Age (in years)	Gender	Years of experience	SES
1. DT	24	Male	3	Low
2. RS	24	Female	2	Low
3. P	22	Female	0	Low
4. AK	29	Male	6	Low
5. MrT	24	Female	2	Low
6. SS	27	Male	4	Middle
7. MK	28	Male	4	Middle
8. RT	30	Male	8	Middle
9. DS	22	Female	1	Middle
10. TGC	24	Female	1	Middle
11. PR	26	Female	3	Middle
12. SR	21	Female	0	High
13. TT	27	Male	4	High
14. AP	24	Male	2	High
15. LR	23	Female	2	High

16. What is the mean (average) period of experience of the 15 employees at the office?

A. 2 years

B. 2.6 years

C. 2.8 years

D. 3 years

17. For the AGES of the 15 employees, which value is higher between the MEAN and the MEDIAN in the given data set?

- A. Mean
- B. Median
- C. Both are equal
- D. It cannot be determined

18. In the given dataset, SOCIO ECONOMIC STATUS (SES) is what kind of variable (or unit of measurement)?

- A. Nominal
- B. Ordinal
- C. Interval
- D. Ratio

19. Who has higher MEAN (Average) AGE between male and female employees?

- A. Males
- B. Females
- C. Both have equal mean ages
- D. Cannot be determined

20. What is the frequency of individuals from Middle Class SES in the given data set?

- A. Five (5)
- B. Six (6)
- C. Fifteen (15)
- D. Zero (0)

21. What is the value for Q1 (First quartile) for AGES of the fifteen employees given in the data set?

- A. Twenty Two (22)
- B. Twenty Three (23)
- C. Twenty Four (24)
- D. Twenty Seven (27)

22. What is the MODE for EXPERIENCE in the given data set?

- A. Two (2)
- B. Four (4)
- C. Fifteen (15)
- D. Zero (0)

23. To check for the significance of relationship between age of employees and years of experience, which of the following inferential tests would be most suited?

- A. Shapiro Wilk test of normality
- B. Independent samples t test
- C. Pearson's correlation
- D. Chi square test

24. Check out the manner in which age and years of experience changes for each person in the data set. What kind of relationship can you discern between the two variables, based on your observation or impression of the data (and without calculating any statistics)?

- A. Positive relationship
- B. Negative relationship
- C. Zero relationship
- D. Non linear relationship

25. What is the range of the ages of the 15 employees. Choose the correct option from below.

- A. 10 years
- B. 9 years
- C. 25 years
- D. 15 years