

Question # 1 of 10 (start time: 10:57:37 PM, 18 January 2024)

Total Marks: 1

Which of the following statistical tests will be considered, if a researcher wants to know whether exam performance differs based on test anxiety levels among students, dividing students into three independent groups (e.g., low, medium and high-stressed students)?

Select the correct option



Reload Math Equations

Z test

F test

Anova

T test

Question # 2 of 10 (**Start time: 10:59:21 PM, 18 January 2024**)

If two variables are moving in the same direction, it is called as _____ correlation.

Select the correct option

Negative

Non-linear

Linear

Positive




Question # 3 of 10 (**Start time: 11:00:35 PM, 18 January 2024**)

Pearson's Correlation Analysis is also known as:

Select the correct option

| | |
|-----------------------|---------------------------------------|
| <input type="radio"/> | Spearman's Correlation Analysis |
| <input type="radio"/> | Kruskal-Wallis Correlational Analysis |
| <input type="radio"/> | Pearson's Product-Moment |
| <input type="radio"/> | Chi-Squared Product-Moment |




Question # 5 of 10 (**Start time: 11:03:15 PM, 18 January 2024**)

Two-way ANOVA means groups are defined by two _____ variables.

Select the correct option

| | |
|-----------------------|-------------|
| <input type="radio"/> | Dependent |
| <input type="radio"/> | Partial |
| <input type="radio"/> | Extraneous |
| <input type="radio"/> | Independent |



Question # 7 of 10 (**start time: 11:05:50 PM, 18 January 2024**)

Which of the following is an advantage of ANOVA?

Select the correct option



It cannot tolerate data that is non-normal



It performs all three comparisons simultaneously in one hypothesis test



It decides if the population mean is equal to a specific value or not



All of the above




Question # 10 of 10 (**Start time: 11:08:56 PM, 18 January 2024**)

What does ANOVA calculate?

Select the correct option

| | |
|-----------------------|----------|
| <input type="radio"/> | Z-scores |
| <input type="radio"/> | T-scores |
| <input type="radio"/> | F ratios |
| <input type="radio"/> | R ratios |



Question # 1 of 10 (Start time: 11:31:13 PM, 18 January 2024)

In ANOVA, which of the following tests is preferably used when the assumption of the homogeneity of variance is violated?

Select the correct option



Reload Ma



Shapiro-Wilk



Welch and Brown-Forsythe



Koimogorov-Smirnov tests




Levene's test

Question # 2 of 10 (**Start time: 11:32:53 PM, 18 January 2024**)

What would be the best interpretation of $H_0: \rho = 0$?

Select the correct option

| | |
|-----------------------|--|
| <input type="radio"/> | There is negative correlation |
| <input type="radio"/> | There is no population correlation  |
| <input type="radio"/> | There is real correlation |
| <input type="radio"/> | There is covariance |

Question # 3 of 10 (**Start time: 11:33:59 PM, 18 January 2024**)

What would be accurate interpretation of the following hypothesis $H_1: \rho \neq 0$?

Select the correct option

| | |
|-----------------------|------------------------------------|
| <input type="radio"/> | There is no population correlation |
| <input type="radio"/> | There is negative correlation |
| <input type="radio"/> | There is covariance |
| <input type="radio"/> | There is real correlation |

Question # 4 of 10 (**Start time: 11:35:09 PM, 18 January 2024**)

In one-way ANOVA, _____ is used to determine which of given groups differ from each other.

Select the correct option

F test

Post hoc test

Levene's test

T test

Question # 8 of 10 (**Start time: 11:41:21 PM, 18 January 2024**)

In ANOVA, difference exists between the treatment conditions is termed as:

Select the correct option

| | |
|-----------------------|-----------------------------|
| <input type="radio"/> | Treatment variance |
| <input type="radio"/> | No treatment variance |
| <input type="radio"/> | Between-treatments variance |
| <input type="radio"/> | Within treatments variance |

Question # 1 of 10 (Start time: 11:52:27 PM, 18 January 2024)

Total Marks: 1

ANOVA or F-test is also robust to moderate departures from normality when sample sizes are reasonably _____ and are equal.

Select the correct option

 Reload Math Equations

Large



Small



Skewed



Moderate

Question # 9 of 10 (**Start time: 11:42:34 PM, 18 January 2024**)

Which of the following statement is true for the Pearson correlation?

Select the correct option



The relationship between two variables while controlling the influence of a third variable by holding it constant.

All of the above

It measures the degree and the direction of the linear relationship between two variables.

It measures the degree and the direction of the non-linear relationship between two or more variables.

Question # 2 of 10 (**Start time: 11:53:59 PM, 18 January 2024**)

What are the two types of variance which can occur in your data?

Select the correct option

Repeated and extraneous groups

Independent and confounding groups

Experimenter and participant groups

Between or within groups

Question # 4 of 10 (**Start time: 11:56:39 PM, 18 January 2024**)

In which of the following cases could you use a paired-samples t-test?

Select the correct option

When comparing two separate groups

When comparing men and women's scores

When comparing the same participants performance before and after training

When assessing three groups or more

PSY516 - Statistics in Psychology (Quiz 4)

Question # 5 of 10 (**Start time: 11:57:58 PM, 18 January 2024**)

For ANOVA, independent variable is always _____ in nature.

Select the correct option

| | |
|-----------------------|-------------|
| <input type="radio"/> | Interval |
| <input type="radio"/> | Ratio |
| <input type="radio"/> | Categorical |
| <input type="radio"/> | Continuous |

Question # 6 of 10 (Start time: 11:59:46 PM, 18 January 2024)

The population correlation is positive in a directional hypothesis. This type of hypothesis can be written statistically as:.

Select the correct option



Reload M

$$H_0: \rho \leq 0$$

$$H_0: \rho = 0$$

$$H_1: \rho < 0$$

$$H_1: \rho \neq 0$$

Question # 8 of 10 (start time: 12:03:30 AM, 19 January 2024)

To

Which of the following refers to the proportion of variability in the data that is explained by the relationship between X and Y?

Select the correct option

 Reload Math E



Coefficient of determination



Coefficient of variance



Regression analysis



Coefficient of correlation

PSY516 – Statistics in Psychology (Quiz 4)

Question # 7 of 10 (**Start time: 12:01:52 AM, 19 January 2024**)

Coefficient of determination is denoted by:

Select the correct option

| | |
|-----------------------|-------|
| <input type="radio"/> | F |
| <input type="radio"/> | r^2 |
| <input type="radio"/> | r |
| <input type="radio"/> | T |

Question # 9 of 10 (Start time: 12:05:05 AM, 19 January 2024)

Total Marks: 1

The one-way analysis of variance (ANOVA) is used to determine whether there are any statistically significant differences between the means of _____ independent (unrelated) groups.

Select the correct option



Reload Math Equations

Two

Less than two

One

Two or more

Question # 10 of 10 (**Start time: 12:06:49 AM, 19 January 2024**)

What would be accurate interpretation of the following hypothesis $H_1: \rho \neq 0$?

Select the correct option

There is real correlation

There is no population correlation

There is negative correlation

There is covariance

Question # 1 of 10 (start time: 12:27:24 AM, 19 January 2024)

Total Marks: 1

Which of the following statistical tests will be considered, if a researcher wants to know whether exam performance differs based on test anxiety levels among students, dividing students into three independent groups (e.g., low, medium and high-stressed students)?

Select the correct option



Reload Math Equations

F test

T test

Anova

Z test

Question # 2 of 10 (**start time: 12:28:58 AM, 19 January 2024**)

To

Which of the following is a statistical technique that is used to measure and describe the relationship between two variables?

Select the correct option



Reload Math E

Standard deviation

Correlation

T-test

Mean

PSY516 - Statistics in Psychology (Quiz 4)

Question # 3 of 10 (**Start time: 12:30:06 AM, 19 January 2024**)

What does ANOVA calculate?

Select the correct option

| | |
|-----------------------|----------|
| <input type="radio"/> | F ratios |
| <input type="radio"/> | T-scores |
| <input type="radio"/> | R ratios |
| <input type="radio"/> | Z-scores |

Question # 4 of 10 (start time: 12:30:48 AM, 19 January 2024)

The population correlation is positive in a directional hypothesis. This type of hypothesis can be written statistically as:.

Select the correct option



Reload

$$H_0: \rho = 0$$

$$H_0: \rho \leq 0$$

$$H_1: \rho \neq 0$$

$$H_1: \rho < 0$$

Question # 7 of 10 (**start time: 12:35:54 AM, 19 January 2024**)

In ANOVA, which of the following tests is preferably used when the assumption of the homogeneity of variance is violated?

Select the correct option



Reload Mo



Kolmogorov-Smirnov tests



Welch and Brown-Forsythe



Shapiro-Wilk



Levene's test

Question # 8 of 10 (**Start time: 12:37:04 AM, 19 January 2024**)

What would be the best interpretation of $H_0: \rho = 0$?

Select the correct option

| | |
|-----------------------|------------------------------------|
| <input type="radio"/> | There is real correlation |
| <input type="radio"/> | There is covariance |
| <input type="radio"/> | There is no population correlation |
| <input type="radio"/> | There is negative correlation |

Question # 10 of 10 (**Start time: 12:40:57 AM, 19 January 2024**)

In one-way ANOVA, _____ is used to determine which of given groups differ from each other.

Select the correct option

Levene's test

T test

Post hoc test


F test

Question # 1 of 10 (Start time: 10:00:14 PM, 20 January 2024)

Total

Which of the following refers to a hypothesis-testing procedure that is used to evaluate mean differences between two or more treatments (or populations)?

Select the correct option

 Reload Math Equations Analysis of variance (ANOVA) Chi-square Correlation Analysis of Regression

Question # 2 of 10 (**Start time: 10:01:38 PM, 20 January 2024**)

How many dependent variables you must have for an ANOVA to be conducted?

Select the correct option

| | |
|-----------------------|-----------------------|
| <input type="radio"/> | 1 continuous variable |
| <input type="radio"/> | 3 ratio variables |
| <input type="radio"/> | 3 interval variables |
| <input type="radio"/> | 2 nominal variables |

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Question # 3 of 10 (**Start time: 10:03:14 PM, 20 January 2024**)

What does ANOVA calculate?

Select the correct option

| | |
|-----------------------|--------------|
| <input type="radio"/> | Mann Whitney |
| <input type="radio"/> | F ratios |
| <input type="radio"/> | Z score |
| <input type="radio"/> | T score |

Question # 4 of 10 (start time: 10:04:14 PM, 20 January 2024)

Which of the following is the total probability of a Type I error accumulated from all of the separate tests in the experiment?

Select the correct option



Reload Math

Group wise alpha level

Individual alpha level

Test wise alpha level

Experiment wise alpha level

Question # 5 of 10 (Start time: 10:05:27 PM, 20 January 2024)

Total Marks: 1

The one-way analysis of variance (ANOVA) is used to determine whether there are any statistically significant differences between the means of _____ independent (unrelated) groups.

Select the correct option



Reload Math Equations

Two

Less than two

One

Two or more

Question # 6 of 10 (**start time: 10:06:35 PM, 20 January 2024**)

In within-subject design, dependent variable is measured _____ times for each individual in a single sample.

select the correct option

 Reload M

One

Two

Four

Three

Question # 7 of 10 (**Start time: 10:08:18 PM, 20 January 2024**)

For ANOVA, dependent variable is always _____ in nature.

Select the correct option

Interval

Ratio

Categorical

Continuous

Question # 9 of 10 (**Start time: 10:11:22 PM, 20 January 2024**)

A repeated measures t-test can be used to assess:

Select the correct option

Differences between scores obtained on two separate occasions from the same participants

Differences between two groups of participants

Relationships between two interval data sets

How many factors there are in questionnaire data

Question # 1 of 10 (**start time: 10:22:20 PM, 20 January 2024**)

In ANOVA, which of the following tests is preferably used when the assumption of the homogeneity of variance is violated?

Select the correct option



Reload Ma



Shapiro-Wilk



Kolmogorov-Smirnov tests



Welch and Brown-Forsythe



Levene's test

Question # 2 of 10 (**Start time: 10:22:36 PM, 20 January 2024**)

How many dependent variables you must have for an ANOVA to be conducted?

Select the correct option

1 continuous variable

3 ratio variables

3 interval variables

2 nominal variables

Question # 3 of 10 (**start time: 10:22:52 PM, 20 January 2024**)

In ANOVA, difference exists between the treatment conditions is termed as:

Select the correct option

| | |
|-----------------------|-----------------------------|
| <input type="radio"/> | Treatment variance |
| <input type="radio"/> | Within treatments variance |
| <input type="radio"/> | No treatment variance |
| <input type="radio"/> | Between-treatments variance |

Question # 4 of 10 (**Start time: 10:24:00 PM, 20 January 2024**)

How many levels must there be in one independent variable for an ANOVA to be used?

Select the correct option

1

2

4

3

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Question # 5 of 10 (**Start time: 10:25:19 PM, 20 January 2024**)

In ANOVA, the homogeneity of variance assumption will be tested by:

Select the correct option

| | |
|-----------------------|--------------------------|
| <input type="radio"/> | Levene's test |
| <input type="radio"/> | Kolmogorov-Smirnov tests |
| <input type="radio"/> | Welch and Brown-Forsythe |
| <input type="radio"/> | Shapiro-Wilk |

Question # 6 of 10 (**Start time: 10:26:35 PM, 20 January 2024**)

The population correlation is traditionally represented by the Greek letter _____.

Select the correct option

t

r^2

ρ

H_0

Question # 7 of 10 (Start time: 10:28:41 PM, 20 January 2024)

Which of the following statement is true for the Pearson correlation?

Select the correct option



It measures the degree and the direction of the non-linear relationship between two or more variables.

All of the above

It measures the degree and the direction of the linear relationship between two variables.

The relationship between two variables while controlling the influence of a third variable by holding it constant.

Question # 9 of 10 (start time: 10:29:07 PM, 20 January 2024)

When there is a _____ linear relationship in Pearson correlation, every change in the X variable is accompanied by a corresponding change in the Y variable.

Select the correct option



Reload Math

Perfect

Positive

Zero

Negative

Question # 8 of 10 (**Start time: 10:28:54 PM, 20 January 2024**)

Which of the following is an advantage of ANOVA?

Select the correct option

- | | |
|-----------------------|---|
| <input type="radio"/> | All of the above |
| <input type="radio"/> | It cannot tolerate data that is non-normal |
| <input type="radio"/> | It performs all three comparisons simultaneously in one hypothesis test |
| <input type="radio"/> | It decides if the population mean is equal to a specific value or not |

Question # 10 of 10 (**Start time: 10:29:18 PM, 20 January 2024**)

For two-way ANOVA, we calculate _____ kinds of degrees of freedom.

Select the correct option

Two

Three

One

Four

Question # 1 of 10 (**Start time: 11:02:38 PM, 20 January 2024**)

Two-way ANOVA means groups are defined by two _____ variables.

Select the correct option

| | |
|-----------------------|-------------|
| <input type="radio"/> | Partial |
| <input type="radio"/> | Independent |
| <input type="radio"/> | Extraneous |
| <input type="radio"/> | Dependent |

PSY516 - Statistics in Psychology (Quiz 4)

Question # 2 of 10 (**Start time: 11:04:26 PM, 20 January 2024**)

Pearson's Correlation Analysis is also known as:

Select the correct option

| | |
|-----------------------|---------------------------------------|
| <input type="radio"/> | Kruskal-Wallis Correlational Analysis |
| <input type="radio"/> | Pearson's Product-Moment |
| <input type="radio"/> | Spearman's Correlation Analysis |
| <input type="radio"/> | Chi-Squared Product-Moment |

PSY516 - Statistics in Psychology (Quiz 4)

Question # 3 of 10 (**Start time: 11:04:41 PM, 20 January 2024**)

Coefficient of determination is denoted by:

Select the correct option

| | |
|-----------------------|-------|
| <input type="radio"/> | F |
| <input type="radio"/> | r |
| <input type="radio"/> | r^2 |
| <input type="radio"/> | T |

Question # 5 of 10 (**Start time: 11:05:13 PM, 20 January 2024**)

In which of the following cases could you use a paired-samples t-test?

Select the correct option

When assessing three groups or more

When comparing two separate groups

When comparing the same participants performance before and after training

When comparing men and women's scores

PSY516 – Statistics in Psychology (Quiz 4)

Question # 6 of 10 (**Start time: 11:06:42 PM, 20 January 2024**)

Which of the following is NOT an application of correlation coefficient?

Select the correct option

Prediction

Validity

Reliability

Variation

Question # 4 of 10 (**Start time: 11:05:02 PM, 20 January 2024**)

How many dependent variables you must have for an ANOVA to be conducted?

Select the correct option

2 nominal variables

1 continuous variable

3 ratio variables

3 interval variables

Question # 8 of 10 (**Start time: 11:08:12 PM, 20 January 2024**)

How should a paired-samples t-test be reported in APA format?

Select the correct option



$$F(12, 29) = 9.67, p < 0.001$$



$$Z = 4.87, t(29) = 5.93, p = 0.000$$



$$r(18) = +8.97, p > 0.005$$



$$t(37) = +3.67, p < 0.05$$

Question # 9 of 10 (**Start time: 11:10:01 PM, 20 January 2024**)

Which of the following statement is true for the Pearson correlation?

Select the correct option

Generally computed for dispersed data

Generally computed for sample data

Generally computed for population data

Generally computed for scattered data

Question # 10 of 10 (**Start time: 11:11:19 PM, 20 January 2024**)

What does ANOVA calculate?

Select the correct option

| | |
|-----------------------|----------|
| <input type="radio"/> | F ratios |
| <input type="radio"/> | T-scores |
| <input type="radio"/> | Z-scores |
| <input type="radio"/> | R ratios |

Question # 2 of 10 (**start time: 07:31:02 PM, 20 January 2024**)

Total Marks: 1

Which of the following is the total probability of a Type I error accumulated from all of the separate tests in the experiment?

Select the correct option

[Reload Math Equations](#)

Group wise alpha level

Experiment wise alpha level

Test wise alpha level

Individual alpha level

Question # 2 of 10 (**Start time: 10:59:21 PM, 18 January 2024**)

If two variables are moving in the same direction, it is called as _____ correlation.

Select the correct option

Negative

Non-linear

Linear

Positive