In the sign table for factorial design, except for the first column M, every column has

Select the correct option

- ○ More " - " signs than " + " signs
- ○ There is no such rule.
- ○ More " + " signs than " - " signs
- ○ An equal number of " + " and " - " signs

In a 2 x 2 x 2 factorial experiment, the possible treatment combinations can be

Select the correct option

- ○ 6
- ○ 4
- ◉ 2
- ○ 8

Applications of experimental designs include:

Select the correct option

- optimizing a process
- determine system and component energy
- terminologies of experiment
- none of these

Sir Ronald A Fisher was the pioneer in the use of:

Select the correct option

○	statistical method
○	none of these
○	physical method
○	physical method

In a 2 x 2 x 2 factorial experiment, if the factors A, B and C are of interest and Sum of Squares for factor A (SSA) is 217.56, the Mean Square for factor A (MSA) will be

Select the correct option

○	54.39
○	108.78
○	27.195
○	217.56

In a factorial design, three factors; A, B and C each at two levels are of interest, if the number of replicates is "n" then the total degrees of freedom for such design will be

Select the correct option

○	abc(n-1)
○	(a-1)(b-1)(c-1)
○	abcn-1
○	2n(a-1)(b-1)(c-1)

How many second order interactions are possible in a 2 x 2 x 2 factorial design?

Select the correct option

- 1
- 3
- 0
- 2

The possible interaction effects in a 2 x 2 x 2 factorial experiment are

Select the correct option

- ○ 10
- ○ 8
- ○ 4
- ○ 6

Which of the following test is considered for comparing all pairs of sample means?

Select the correct option

○	Chi Square Test
○	F-test
○	t-test
○	Duncan's Multiple Range Test

Duncan's test was developed by Duncan in;

Select the correct option

- 1965
- 1955
- 1950
- 1960

Experiments are carried out to validate and support a hypothesis but they base on

Select the correct option

- ○ logical analysis of result
- ○ to make observation in data form
- ○ none of these
- ○ paradigm of random experiment

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Duncan's test is very powerful when _____ exist between means;

Select the correct option

- trust
- similarity
- difference
- nothing

Which one is not the main objective of experiment:

Select the correct option

- to achieve desired response
- to verify the hypothesis
- to keep the variability of response small
- to make system robust against outliers

In a 2 x 2 x 2 factorial experiment, If the number of replicates is 2 then the degrees of freedom for error will be

Select the correct option

- 4
- 2
- 6
- 8

The sum of products of signs is in any two columns is zero that is any two columns are

Select the correct option

- ○ Parallel
- ○ Correlated
- ○ Orthogonal
- ○ Multinomial

In a factorial design, three factors; A, B and C each at two levels are of interest, such design is called

tion

Reload Math Equations

2^2factorial design

3^2factorial design

3^3factorial design

2^3factorial design

Main focus in experiment designs includes the establishment of

Select the correct option

- validity
- none of these
- reliability
- stability

___ is required for all types of organization whether its politics , social , culture or business.

Select the correct option

- money
- planning
- hardworking
- energy

The possible interaction effects in a 2 x 2 x 2 factorial experiment are

Select the correct option

○	4
○	8
○	6
○	10

Duncan's test is used to compare all pairs of;

Select the correct option

- means
- sets
- variables
- extreme

In the Duncan's Multiple Range Test, what is "p"?

Select the correct option

○	p is the number of steps between two means being compared
○	none of these
○	p is number of means
○	p is sample size

In a 2 x 2 x 2 factorial experiment, if the number of replicates is 2 then the degrees of freedom for error will be

Select the correct option

- 8
- 4
- 2
- 6

How many second order interactions are possible in a 2 x 2 x 2 factorial design?

Select the correct option

- ○ 2
- ○ 1
- ○ 0
- ○ 3