



# RESEARCH APTITUDE



2018-2021

June 1st - 15th Schedule	N	larathon Session + Practice Ques
youTube Free Class	PAPER-1 Practice Ques.	PAPER-2 CS Practice Ques.
Way to JRF 2022	4:00 pm - 5:00 pm	9-8 pm 9
Monday		
Tuesday, 31st May 2022	Practice MCQ Teaching	Practice RYQ AI
Wednesday, 1st June 2022	Practice MCQ Research	Practice Expected MCQ AI
Thursday, 2nd June 2022	Practice MCQ Communication	Practice PYQ SE
Friday, 3rd June 2022	Practice MCQ ICT	Practice Expected MCQ SE
Saturday, 4th June 2022	Practice MCQ LR	Practice PYQ DBMS
Sunday, 5th June 2022	Practice MCQ HE	Practice Expected Bigdata + NoSQL
Monday, 6th June 2022	Practice MCQ PDE	Practice Expected Data Mining
Tuesday, 7th June 2022	Practice MCQ Indian Logic	Practice SQL
Wednesday, 8th June 2022	Practice PYQ TOC + Compiler	Practice PYQ TOC + Compiler
Thursday, 9th June 2022	Practice PYQ CN	Practice PYQ CN
Friday, 10th June 2022	Practice PYQ OS	Practice PYQ OS
Saturday, 11th June 2022	Practice PYQ Discrete Math	Practice PYQ Discrete Math
Sunday, 12th June 2022	Practice DSA	Practice DSA
Monday, 13th June 2022	Practice COA	Practice COA
Tuesday, 14th June 2022	Practice CG	Practice CG
Wednesday, 15th June 2022	Practice Cloud Computing	Practice Web Programming
		CURCOIRE



- Q1) Which of the following are the stages of meta analysis?
- A.Understand the literature
- B.Conduct new studies to fill the gap
- C.Develop inclusion and exclusion criteria of the study
- **D.Locating primary studies**
- E.Identify secondary data

Choose the correct answer from the options given below:

- A)A, B and D only
- B)A, C and D only
- C)B, C and D only
- D)B, D and E only





Tips: 1ques. From sequence, steps



Q1) Which of the following are the stages of meta analysis?

✓A.Understand the literature 1<sup>st</sup>

B.Conduct new studies to fill the gap

C.Develop inclusion and exclusion criteria of the study

D.Locating primary studies

E.Identify secondary data

Choose the correct answer from the options given below:

A)A, B and D only

**B**∕A, Cand Donly

C)B, C and D only

D)B, D and E only





- Q2) If a researcher has to test a hypothesis whether the difference between the means of two groups are significant, s/he will use:
  - A)Chi-square test
  - B)Correlation coefficient
  - C)Sign-test
  - D)Student's t-test





Tips: 1ques.

From

hypothesis



Q2) If a researcher has to test a hypothesis whether the difference between the means of two groups are significant, s/he will use:

- A)Chi-square test
- B)Correlation coefficient
- C)Sign-test
- D)Student's t-test









Q3) Given below are two statements

Statement I: Parametric statistics are more powerful than nonparametric statistics.

Statement II: Parametric statistics are assumption free statistics.

In light of the above statements, choose the correct answer from the options given below

- A)Both Statement I and Statement II are false
- B)Both Statement I and Statement II are true
- C)Statement I is false but Statement II is true
- D)Statement I is true but Statement II is false





Tips: PhD entrance

Q3) Given below are two statements

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## Parametric Vs. Non – Parametric test;

#### Parametric test

- Based on assumptions that data follow normal distribution or normal family of distribution.
- Estimate parameter of underlying normal distribution.
- Significance of difference known

#### Non parametric test

- Variable under study don't follow normal distribution or any other distribution of normal family.
- Association can be estimated.





Steps Types

eary

Q4) Given below are two statements

Statement I: Exploratory studies mainly aim at developing hypotheses or questions for further research.

Statement II: The goal of formal study is to test the hypotheses or answer the questions posed.

In light of the above statements, choose the correct answer from the options given below

- A)Both Statement I and Statement II are false
- B)Both Statement I and Statement II are true
- C)Statement I is false but Statement II is true
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Q5) Which among the following methods is commonly used in anthropological research?

- A)Case study method
- B)Ethnographic method
- C)Life history method
- D)Survey method





Q5) Which among the following methods is commonly used in anthropological research?

A)Case study method

B)Ethnographic method - whuse

C)Life history method 💥

John velection D) Survey method >





Teading 2021 Research 2021

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Research Topics

Nariable Rating Code

Research Topics

Meta Analysis

Research Types

Types Grant

Types Grant

Research Types

Types Grant

Types Grant

Types Grant

Research Types

Types Grant

Types Gra

Research Topics	No. of Ques
Meta Analysis	1
Research Types	2
Types of Test-chi-square, Parametric, Non-Parametric Test	2
Total	5



96 Viterature Review

Summarising and interpreting primary studies related to the identified research question or objective in a qualitative manner is called:

(1) Qualitative review

(2) Realistic review

(3) Narrative review

(4) Meta review





Summarising and interpreting primary studies related to the identified research question or objective in a qualitative manner is called :

Qualitative review (1)

Realistic review

Ans: 4

Narrative review (3)

quantifective

qualitative beyond Ls open-ended Meta

Meta-analysis is a systematic review of a focused topic in the literature that provides a quantitative estimate for the effect of a treatment intervention or exposure. Results from a meta-analysis can refute expert opinion or popular belief.



2018, 2020

When a respondent is aware of being measured then its effect on his behaviour is identified

- as
- Self consciousness

(2) Reactivity

characteristics

(3) Artificiality

(4) Identity effect



<u>148</u>



When a respondent is aware of being measured then its effect on his behaviour is identified as

- K Self consciousness X
- (3) Artificiality

- (2) Reactivity Nature
- (4) Identity effect

Ans: 2

Reactivity is a phenomenon that occurs when individuals alter their performance or behaviour due to the awareness that they are being observed

The change may be positive or negative, and depends on the situation.

It is a significant threat to a research study's external validity and is typically controlled for using blind experiment designs.





Variables D, ID





Which of the following techniques are used to control extraneous variables in research?

- 3,
  - Change of instrument (A)
  - Randomisation (B)



- Matching (C)
- Removing variables (D)
- (E) Changing the research method

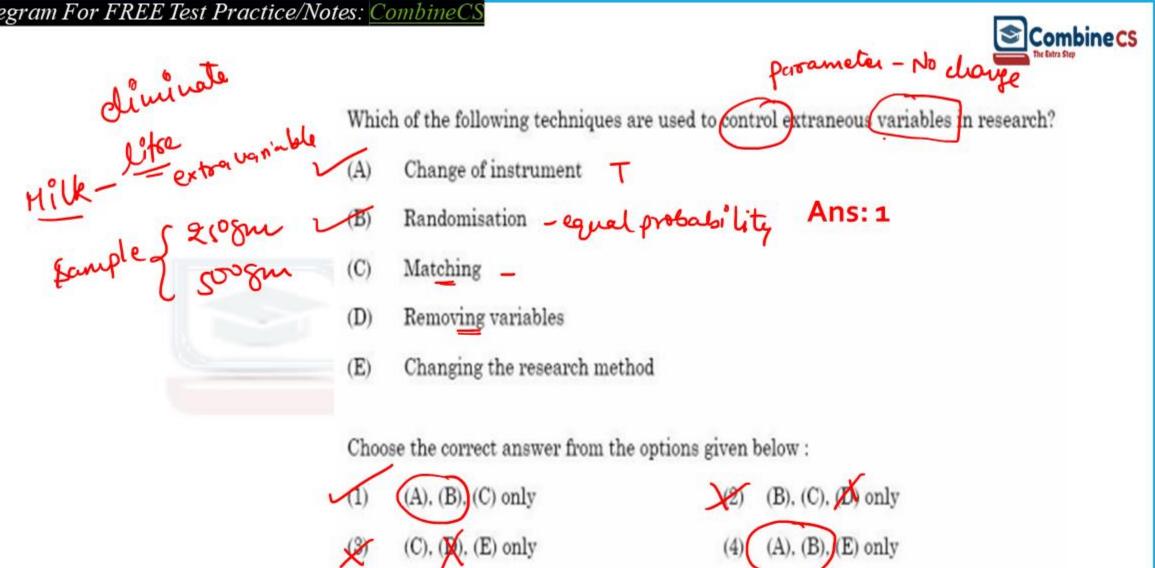
Choose the correct answer from the options given below:

(A), (B), (C) only (1)

(B), (C), (D) only

(C), (D), (E) only (3)

(A), (B), (E) only





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practice matching

Largely, there are four approaches by which the effect of the extraneous variables can be controlled.

Wandomization: In this approach, treatments are randomly assigned to the experimental groups. It is assumed that the extraneous factors are present equally in all the groups. This technique is only workable when the sample size is very large.

2)Matching: Another important technique is to match the different groups of confounding variables.

Different confounding variables like gender, age, income etc. could be distributed equally amongst the group. It sometimes does become difficult to extend matching within all the groups and another drawback of the same is that, sometime the matched characteristics may be irrelevant to the dependant variable.

JiThe use experimental designs: In certain studies, the experimental designs may play a crucial role in reducing or completely removing the role and impact of the extraneous variables.

Astatistical Control: There may be situations, when all the above mentioned methods to control the extraneous variables do not show any significant outcome. It brings the entire research into question as then causal inferences are difficult to make. Another method that may work to bring down the effect of extraneous variables is the method of statistical control. Among the various statistical tools and techniques, Analysis of Covariance (ANOVA) helps in reducing the impact of the extraneous factors on the study.



Mech

Teaching



Match List I with List II:

english

List I

Type of validity

- (A) Face Validity
- B) Concurrent validity
- (C) Construct create
- D) Predictive

List II

Reflection

- Indicates adequacy of instrument
- (II) Indicates the extent to which the measurement is used
- (III) Compares a new test to an already established test.
- (IV) The extent to which a score on a scale forecasts scores on same criterion measure

Choose the correct answer from the options given below:

- (1) (A)-(I), (B)-(II), (C)-(III), (D)-(IV)
- (2) (A)-(II), (B)-(III), (C)-(IV), (D)-(I)
- (3) (A)-(III), (B)-(IV), (C)-(I), (D)-(II)
- (4) (A)-(I), (B)-(III), (C)-(II), (D)-(IV)



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Match List I with List II:

List I List II

Type of validity

Reflection

(A) Face Validity

- (I) Indicates adequacy of instrument
- (B) Concurrent validity execution
- Indicates the extent to which the measurement is used

(C) Construct New

(III) Compares a new test to an already established test.

(D) Predictive

(V) The extent to which a score on a scale forecasts cores on same criterion measure

Choose the correct answer from the options given below:

Ans: 1

gali



- Internal validity: With higher internal validity, a researcher is able to establish better causal relationship between two or more variables.
- External validity: It means that external factors that can affect the study must be controlled. It also refers to the extent to which the research outcome can be generalized and applied to other cases that are not under study.
  - Sometimes, internal validity is also termed as credibility and external validity is termed as generalizability or transferability.
- Face validity: By valid, we mean that survey and questionnaire accurately measures what they are supposed to measure.
- Content validity: The indicator measures all aspects of the and not just a part of it.
- Criterion validity refers to how well the measurement of one variable can predict the response of another variable.
- Construct validity is usually verified by comparing the test to other tests that measure similar qualities to see how highly correlated the two measures are.





The probability of not accepting the null hypothesis when the alternative hypothesis is acceptable is called:

Rejection range

(2) Demarcation

(3) Normative incidence

(4) Power





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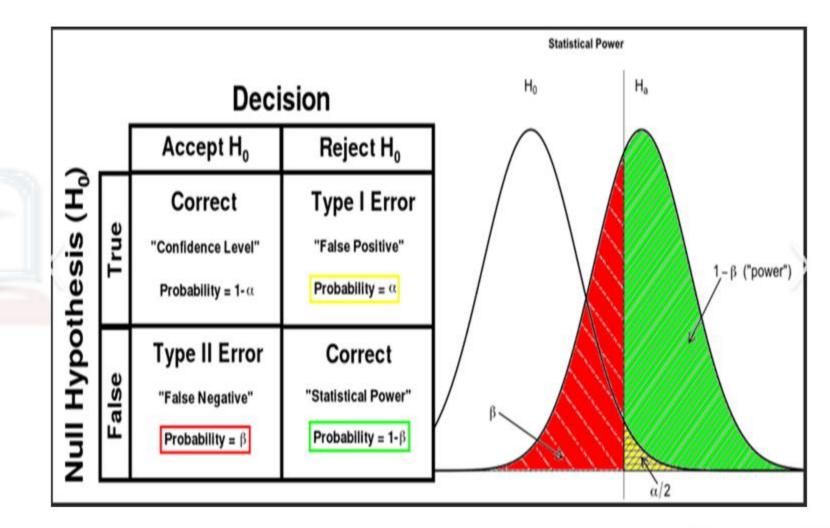
- (1) Rejection range
- (3) Normative incidence

- (2) Demarcation
- (4) Power

Ans: 4











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Which of the following are sources of verbal data?



Verlock NV facial ord written

- (A) Traffic signals 8 igu NV
- (B) Semistructured interviews

clininate

- (C) Narrative interviews
- (D) Focus groups
- (E) Body language NV

Choose the correct answer from the options given below:

(1) (A), (B), (C) only

(2) (B), (C), (D) only

(3) (C), (D), (E) only

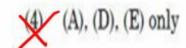
(4) (A), (D), (E) only



Which of the following are sources of verbal data?

- Traffic signals -> Sigu -> NV
- Semistructured interviews
- Narrative interviews
- (D) Focus groups Ans: 2
- Body language > NV

Choose the correct answer from the options given below:





Given below are two statements:

concept

Statement I: A Systematic review can be described as a 'replicable and scientific' process.



Statement II: A transparent review may help us in minimizing personal and other biases.

In the light of the above statements, choose the correct answer from the options given below

- (1) Both Statement I and Statement II are true
- (2) Both Statement I and Statement II are false
- (3) Statement I is true but Statement II is false
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## Match List I with List II:



#### List I

Variables

(A) Independent





- (B) Dependent
- (C) Control
- (D) Discrete

#### List II

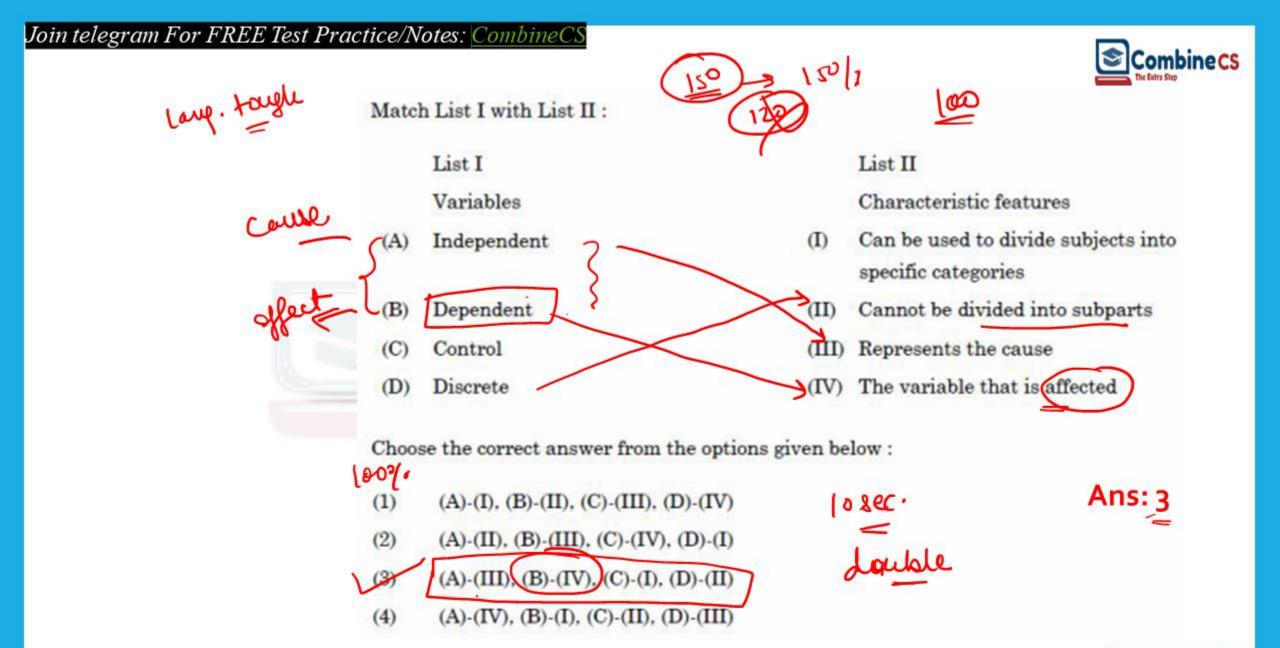
Characteristic features

- Can be used to divide subjects into specific categories
- (II) Cannot be divided into subparts
- (III) Represents the cause
- (IV) The variable that is affected

Choose the correct answer from the options given below:

- (1) (A)-(I), (B)-(II), (C)-(III), (D)-(IV)
- (2) (A)-(II), (B)-(III), (C)-(IV), (D)-(I)
- (3) (A)-(III), (B)-(IV), (C)-(I), (D)-(II)
- (4) (A)-(IV), (B)-(I), (C)-(II), (D)-(III)

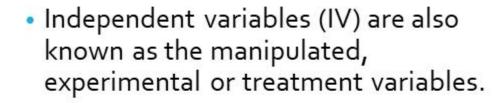


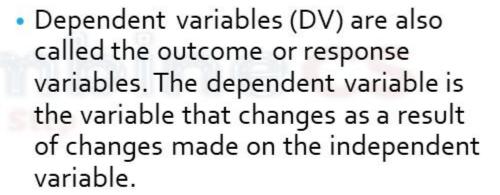






# Types of Variable









Types of Variable cont...

- Intervening variables: These are also termed as mediator variables. They establish link between IV and DV. These are variables through which one variable affects another variable.
- Extraneous Variable: In real-life situations, there can be many factors or variables that may affect the outcome. These variables are termed as extraneous variables.





Q) Post-positivism is related to which one of the following philosophies?

- Subjectivism
- 2. Critical Realism
- 3. Empiricism
- 4. Objectivism





Positivism Post 
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Objective ,

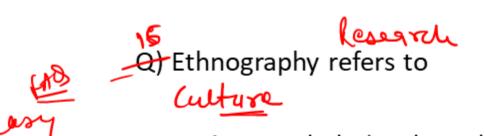
empiricism

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- Subjectivism
- Critical Realism
  - Empiricism
- Objectivism







- A research design that rules out alternative causal explanations of findings deriving from it
- An attribute in terms of which cases do not differ
- A research method where the researcher immerses himself/herself in a social setting for an extended period of time for providing an account of particular culture, society or community
  - 4. A measure that is employed to refer to a concept when no direct measure is available





# Q) Ethnography refers to

- A research design that rules out alternative causal explanations of findings deriving from it
- 2. An attribute in terms of which cases do not differ
- A research method where the researcher immerses himself/herself in a social setting for an extended period of time for providing an account of particular culture, society or community
- 4. A measure that is employed to refer to a concept when no direct measure is available





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2 Q) Given below are two statements

Statement I: Type I Error refers to the decision to reject the null hypothesis when it is incorrect.

Statement II: Sampling error occurs due to the violation of the principle of random sampling.

In light of the above statements, choose the correct answer from the options given below:

- Both Statement I and Statement II are true
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- Statement I is true but Statement II is false
- 4. Statement I is false but Statement II is true





Type 1-cmir
meant = 0

Research Reject

Type 11 — Right RR.

Reject WA

Accept

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/		OTHESIS TESTING	Reality	
	001	COMES	The Null Hypothesis Is True	The Alternative Hypothesis is True
	R e s e	The Null Hypothesis Is True	Accurate 1 - α.	Type II Error β
	a r c h	The Alternative Hypothesis is True	Type I Error α	Accurate 1 - β





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Qualitat

Q) Given below are two statements, one is labelled as Assertion A and the other is labelled as Reason R

Assertion A: Generalisation of a finding is possible only in quantitative studies.

Reason R: Quantitative studies make use of deductive reasoning.

In light of the above statements, choose the correct answer from the options given below

- Both A and R are true and R is the correct explanation of A
- Both A and R are true but R is NOT the correct explanation of A
- 3. A is true but R is false
- A is false but R is true





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Lesearches

a Q) Focus groups as a technique is especially valuable in which of the following scenarios?

- A. When the researcher has perfect clarity about the research.
- B. For obtaining general background about the topic or issue.
- For interpreting previously obtained quantitative results.
- When the researcher is interested in establishing a causal relationship between two variables.
- For generating a level of understanding about influences in the participants' world.

Choose the correct answer from the options given below:

- 1. A, B and D only
- 2. B, C and E only
- B, D and E only
- 4. C, D and E only





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- (B)D and (E)only

C, D and E only





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List I	List II
Statistical	Description
Terms	





Expected Values

€. Mean Ranking

→D. Variance Categorization

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4. A-I, B-II, C-IV, D-III



<sup>2.</sup> A-IV, B-III, C-II, D-I









Types of Research

(A) It is concerned with understanding ..., from the participant's perspective

It assumes that there are social facts with a single objective reality

Researcher becomes immersed in the situation, present or past

Conserved (C)

Researcher is detached from the study to avoid the situation in the situation in the study to avoid the situation in the study to avoid the situation in the situati

- research process

Choose the correct answer from the options given below

- (A), (C) and (E) only
- 2. (A), (B) and (C) only
- 3. (B), (C) and (D) only
- 4. (C), (D) and (E) only



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- O) Identify the main features or general from the following:

  It is concerned with understanding the phenomena from the participant's perspective

  (B) It assumes that there are social facts with a single objective reality

  (C) Researcher becomes immersed in the situation, present or past

  - Researcher is detached from the study to avoid bias
  - (E) There is greater flexibility in both the methods and research process

Choose the correct answer from the options given below

(A) (C) and (E) only (A), (B) and (C) only

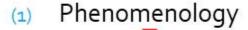
- 3x (B), (C) and (D) only
- 4× (C), (D) and (E) only







- 22
- Q) In which of the following researches, attempts are made to establish context-free generalizations?



- (2) Grounded theory
- Symbolic interactionism
- (4) Experimental Studies







Q)In which of the following researches, attempts are made to establish context-free generalizations?

- Phenomenology
- Symbolic interactionism
- **Experimental Studies**





## **Experimental Studies**



- This research sticks to the scientific research design.
- It aims at testing hypotheses.
- It is conducted typically isolated from the social world.
- It includes a hypothesis, a variable that can be manipulated, and other variables that can be measured.
- It is completed in a controlled environment.
- · Researchers are the decision-maker here.
- A variable is manipulated to see its effect on another variable.
- In this research, attempts are made to establish context-free generalizations.





8) Match List I with List II:



List | List ||

Methods of research Features emphasized

- (A) Experimental (I) Primary and secondary sources tapped with emphasis on internal criticism
- (B) ExPost Facto (II) Status of facts and conditions are ascertained
- (C) Descriptive (III) A variable is manipulated to see its effect on other variable D, LD
- (D) Historical (IV) The differences are noted and factors causal or otherwise are determined
- Choose the correct answer from the options given below:
- (1) (A)-(I), (B)-(II), (C)-(III), (D)-(IV) (2) (A)-(II), (B)-(I), (C)-(IV), (D)-(III)
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- (C) Descriptive / (III) A variable is manipulated to see its effect on other variable
- (D) Historical / (IV) The differences are noted and factors causal or otherwise are determined

Choose the correct answer from the options given below:

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Ans: 3

2 curiety







9) Given below are two statements:

Statement I: Data analysis in research being a technical job, 'research ethics' does not matter.

Statement II (ICT)'s helpful almost at all stages of research. ben-ended -

In the light of the above statements, Choose the correct answer from the options given below:

- (1) Both Statement I and Statement II are true. (2) Both Statement I and Statement II are false.
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- 10) Given below are two statements: One is labeled as Assertion A and the other is labeled as Reason R.

  Assertion (A): When Null Hypothesis (H0) is rejected, researcher's hypothesis (H1) is accepted.
- Reason (R): Null Hypothesis (H0) is a chance hypothesis and as such (H1) being true, the researcher's hypothesis lies in the domain of acceptability.
- In the light of the above statements, Choose the most appropriate answer from the options given below:
- (1) Both (A) and (R) are correct and (R) is the correct explanation of (A). (2) Both (A) and (R) are correct but (R) is NOT the correct explanation of (A).
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List I Artifacts	List II Description
A. History	I. Happens when subjects are given similar pre-tests and post-tests
B. Maturation	II. Subjects' reactions to experimental conditions
C. Testing	III. Occurrence of various events during a study
D. Demand characteristics	IV. Biological and psychological characters changing during the course of the study





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Q) Which one of the following is an important characteristic of the researchers involved in qualitative study?

- Non-partisan
- Reflexivity
- 3. Transparency
- 4. Enthusiasm





Q) Which one of the following is an important characteristic of the researchers involved in qualitative study?

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- Reflexivity
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- Q) Survey research is based on which of the following?
  - Constructivism
  - Interpretivism
  - 3. Positivism
  - 4. Hermeneutics





- Q) Survey research is based on which of the following?
  - Constructivism
  - Interpretivism
  - 3. Positivism
  - 4. Hermeneutics





- Q) Some of the types of hypothesis are as follows:
  - A. Descriptive
  - B. Null
  - Confounding
  - Intervening
  - E. Explanatory (Causal)

Choose the correct answer from the options given below:

- 1. A, B and C only
- 2. B, C and D only
- 3. A, B and D only
- 4. A, B and E only/





- Q) Some of the types of hypothesis are as follows:
  - A. Descriptive
  - B. Null
  - Confounding
  - Intervening
  - E. Explanatory (Causal)

Choose the correct answer from the options given below:

- A, B and C only
- B, C and D only
- 3. A, B and D only
- 4. A, B and E only





# Cont.

Descriptive Hypothesis:

A Hypothesis is about the law which is an instance, is called descriptive Hypothesis.

Explanatory Hypothesis:

A Hypothesis may be about cause of phenomenon; this type of Hypothesis is known as exploratory. This strongly states the existence of cause and effect relationship.





- Q) Which among the following are non-parametric statistics?
  - A. t-test
  - B. F-test
  - Spearman's rank order correlation
  - D. Mann-Whitney-Wilcoxon test
  - E. Kendall coefficient of concordance

Choose the correct answer from the options given below:

- 1. A, B and C only
- 2. B, C and D only
- B, D and E only
- 4. C, D and E only





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Q) Given below are two statements

Statement I: Exploration is particularly useful when researchers lack a clear idea of the problems they will meet during the study.

Statement II: Through exploration, researchers develop concepts more clearly, establish priorities, develop operational definitions, and improve the final research design.

In light of the above statements, choose the correct answer from the options given below:

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In which of the following, there is a greater flexibility in both the methods and process of research?

- (1) Ethnography and phenomenology
- (2) Descriptive survey and impact studies
- (3) Experimental and observation based studies
- (4) Expost facto and historical studies





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# Phenomenology...as a Methodology

- ...is focused on the subjective experience of individuals or groups.
- ...is personal. The world as experienced by the individual, not relationships between people.
- ...uses small, purposive samples of 3-10 participants that have experienced the phenomenon.

 ...attempts to describe accurately a phenomenon from the person's perspective.





In conducting an empirical study, a researcher employs a non-parametric test for data analysis and finds that the 'statistics' arrived at is 'significant' at .05 level. What decisions will be warranted thereafter?

- (A) Rejecting the Null hypothesis (Ho)
- (B) Accepting the Null hypothesis (H<sub>0</sub>)
- (C) Accepting the alternate hypothesis (H<sub>1</sub>)
- (D) Keeping the decision in abeyance
- (E) Rejecting the alternate hypothesis (H<sub>1</sub>)

Choose the correct answer from the options given below:

(1) (A) and (B) only

(2) (B) and (C) only

(3) (D) only

(4) (A) and (C) only







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Given below are two statements: One is labelled as Assertion (A) and the other is labelled as Reason (R):

Assertion (A): In order to bridge the gap between theory and practice both fundamental and applied research formats have to be promoted.

Reason (R): Fundamental research focuses on theory making and applied research is directed at exploring the applicability of theory in varied practical situations.

In the light of the above statements, choose the most appropriate answer from the options given below:

- (1) Both (A) and (R) are correct and (R) is the correct explanation of (A)
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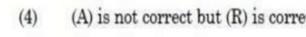
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- (A) is not correct but (R) is correct (4)







#### Given below are two statements:

Statement I: Qualitative research is an umbrella term to refer to various research strategies that share certain characteristics. The data collected have been termed 'soft' i.e. rich in description.

Statement II: Quantitative research is mainly hypothetico deductive and employs mostly statistical techniques for data analysis.

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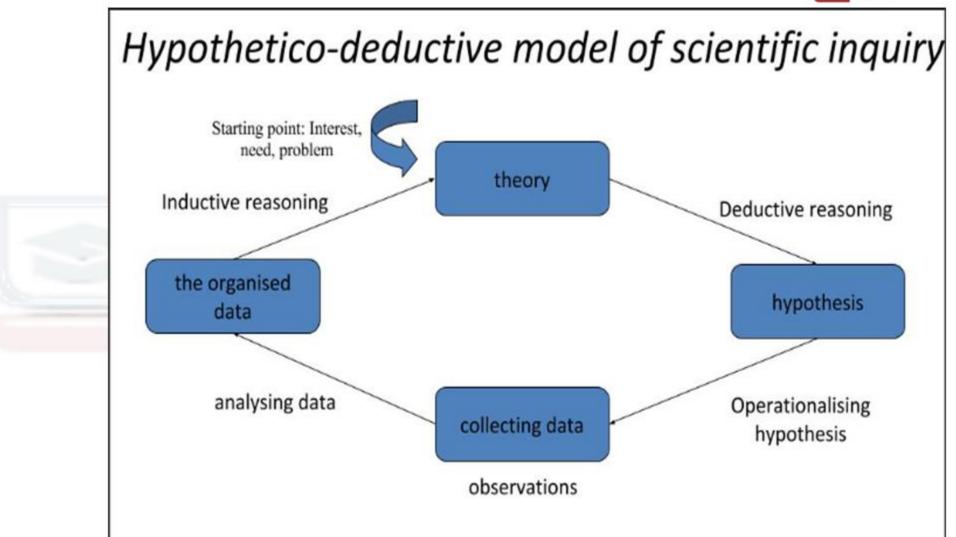
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In which scale of measurement, classification, order and equality of units are ensured?

(1) Ordinal

(2) Nominal

(3) Interval

(4) Ratio





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The critical difference between experimental and ex post facto research lies in terms of:

- (1) Selection of sample
- (2) Causal connection between two variables
- (3) Use of research tools
- (4) Control and manipulation of independent variable





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- (4) Control and manipulation of independent variable







In establishing a research problem for a Ph.D level course, in the initial stage which of the following stages are crucial?

- (A) Hypothesis making
- (B) Locating a problem area from a field through survey of related literature
- (C) Defining the population of research and its characteristics
- (D) Selecting a pointed issue called a problem by a process of logical analysis
- (E) Defining and delimiting the problem

Choose the correct answer from the options given below:

(1) (B), (D) and (E) only

(2) (B), (C) and (D) only

(3) (A), (B) and (C) only

(4) (C), (D) and (E) only





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(3) (A), (B) and (C) only

(4) (C), (D) and (E) only





### Given below are two statements:

Statement I: The goal of inquiry in fundamental research is directed at bringing an increment in the fund of knowledge.

Statement II: Action research is a research by the practitioner, for the practitioner and of the practitioner.

In the light of the above statements, choose the correct answer from the options given below:

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Which argument may be advanced in support of action research in education?

- The researcher breaks fresh ground in the field of enquiry.
- (2) The knowledge is applied to extend further generalization.
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List I mentions various methods of research while List II offers their description.

Match List I with List II:

#### List I

- (A) Experimental method
- (B) Ex-post facto method
- (C) Descriptive survey method
- (D) Ethnographic method

#### List II

- A detailed description of the way people believe and act in a particular society.
- (II) Studies designed to obtain information concerning the current status of phenomena
- (III) Studying the effect of manipulating independent variable on dependent variable under appropriate control imposed.
- (IV) Conducting a probe into causal factors on the basis of evidences manifest now

Choose the correct answer from the options given below:

- (1) (A)-(I), (B)-(II), (C)-(III), (D)-(IV)
- (2) (A)-(IV), (B)-(III), (C)-(II), (D)-(I)
- (3) (A)-(II), (B)-(I), (C)-(IV), (D)-(III)
- (4) (A)-(III), (B)-(IV), (C)-(I), (D)-(II)







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List II

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Choose the correct answer from the options given below:

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- (4) (A)-(III), (B)-(IV), (C)-(I), (D)-(II)







Which of the following features best describe an independent variable in research?

- (A) It is the cause in the cause-effect relationship.
- (B) It is the effect in the cause-effect relationship.
- (C) It is the condition or characteristic which is manipulated in an experimental study.
- (D) It is the variable which is placed under control.
- (E) It is a kind of response variable.

Choose the correct answer from the options given below:

(1) (A) and (B) only

(2) (B) and (C) only

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(4) (D) and (E) only





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Ans: 3

Choose the correct answer from the options given below:

(1) (A) and (B) only

(2) (B) and (C) only

(3) (A) and (C) only

(4) (D) and (E) only





### Independent Variable:



- Independent variables are variables that are manipulated or are changed by researchers and whose effects are measured and compared.
- The other name for independent variables is Predictor(s).
- The independent variables are called as such because independent variables predict or forecast the values of the dependent variable in the model.
- The independent variable is the cause. Its value is independent of other variables in your study.
- Example: How long you sleep (independent variable) affects your test score (dependent variable).





When a particular 'statistics' in a research situation is evidently declared to be significant, which of the following decisions will be considered tenable?

- (A) Null hypothesis is rejected
- (B) Alternative hypothesis is accepted
- (C) Null hypothesis is accepted
- (D) Alternative hypothesis is rejected
- (E) Null hypothesis along with the alternate hypothesis are accepted.

Choose the correct answer from the options given below:

(1) (B) and (C) only

(2) (C) and (D) only

(3) (D) and (E) only

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(4) (A) and (B) only







Statistical significance refers to the claim that a result from data generated by testing or experimentation is not likely to occur randomly or by chance but is instead likely to be attributable to a specific cause. *In most sciences, including economics, statistical significance is relevant if a claim can be made at a level of 95%.* 



If there is less than a 5% chance of a result as extreme as the sample result if the null hypothesis were true, then the null hypothesis is rejected. When this happens, the result is said to be statistically significant.

Typically, if there is a 5% or less chance (5 times in 100 or less) that the difference in the means (or whatever statistic you are using) is as different as observed given the null hypothesis is true, you would reject the null hypothesis and accept the alternative hypothesis.



Given below are two statements: One is labelled as Assertion (A) and the other is labelled as Reason (R):

Assertion (A): Data must be authentic before it can be of any value in a historical research, yet proof of authenticity does not establish' its value, it must also be accurate.



Reason (R): External criticism is, therefore, referred to as lower criticism of the data.

In the light of the above statements, choose the most appropriate answer from the options given below:

- (1) Both (A) and (R) are correct and (R) is the correct explanation of (A)
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- The data of historical sources is subject to two types of evaluation. These
  two types are (i) external evaluation or external criticism and (ii) internal
  evaluation or internal criticism.
- The technique of testing the degree of authenticity of a document is called External Criticism or Heuristics or Lower Criticism.
- The 'External Criticism' is of a less intellectual type of criticism of the documents.
- It includes examinations of documents like manuscripts, books, pamphlets, maps, inscriptions, and monuments.
- The problem of authenticity of documents arises more in the case of manuscripts than the printed documents because the printed document has already been authenticated by the editor.







Given below are two statements:

Statement I: Chance or accidental errors in research will cause obtained results to depart from the true value as often in one direction or in another.

Statement II: Systematic error causes obtained results in research to vary in a particular direction and is far more likely to catch the researcher by surprise than is chance error.

In the light of the above statements, choose the most appropriate from the options given below:

- (1) Both Statement I and Statement II are correct
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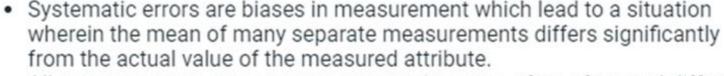
### Explanation:

- 'Chance variation' or 'chance error' or 'random error' is the inherent error in any predictive statistical model. It is defined as the difference between the predicted value of a variable (by the statistical model in question) and the actual value of the variable.
- A random error makes the measured value both smaller and larger than the true value; they are errors of precision. The results vary in any direction.
- Random errors occur by chance and cannot be avoided.
- Random error is due to factors which we do not, or cannot, control.









- All measurements are prone to systematic errors, often of several different types.
- Sources of systematic errors may be imperfect calibration of measurement instruments, changes in the environment that interfere with the measurement process, and imperfect methods of observation.
- A systematic error makes the measured value always smaller or larger than the true value, but not both. The results vary in a particular direction only.
- Systematic error is predictable and either constant or else proportional to the measurement. Most systematic errors may be reduced.





#### Match List I with List II

List I	List II		
Scale of measurement	Properties		
A. Nominal	I. Classification and order		
B. Ordinal	II. Classification, order and equal units		
C. Interval	III. Classification, order, equal units and absolute zero		
D. Ratio	IV. Classification only		



Choose the **correct** answer from the options given below:





List I	List II
Scale of measurement	Properties
A. Nominal	I. Classification and order
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Choose the **correct** answer from the options given below:





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**Statement I:** All research adds to the corpus of knowledge by advancing a theory

**Statement II:** The focus of action research is basically on the amelioration of prevalent practices

In light of the above statements, choose the *correct* answer from the options given below

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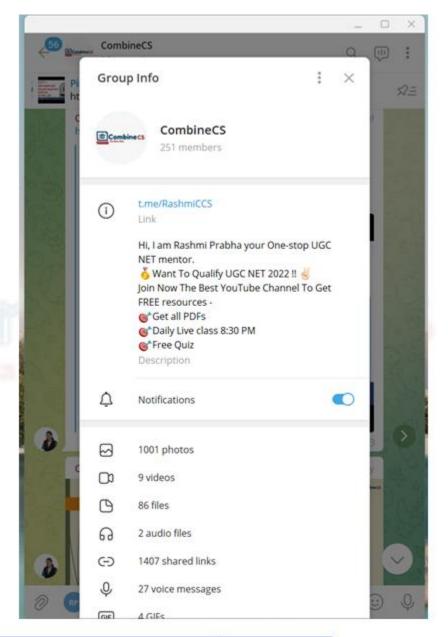
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June 1st - 15th Schedule	Marathon Session + Practice Ques			
youTube Free Class	PAPER-1 Practice Ques.	PAPER-2 CS Practice Ques.		
Way to JRF 2022	4:00 pm - 5:00 pm	7-8pm 9pm		
Monday				
Tuesday, 31st May 2022	Practice MCQ Teaching	Practice PYQ AI	G.	
Wednesday, 1st June 2022	Practice MCQ Research	Practice Expected MCQ AI	Jan Marie	
Thursday, 2nd June 2022	Practice MCQ Communication	Practice PYQ SE		
Friday, 3rd June 2022	Practice MCQ ICT	Practice Expected MCQ SE		
Saturday, 4th June 2022	Practice MCQ LR	Practice PYQ DBMS		
Sunday, 5th June 2022	Practice MCQ HE	Practice Expected Bigdata + NoSQL		
Monday, 6th June 2022	Practice MCQ PDE	Practice Expected Data Mining		
Tuesday, 7th June 2022	Practice MCQ Indian Logic	Practice SQL		
Wednesday, 8th June 2022	Practice PYQ TOC + Compiler	Practice PYQ TOC + Compiler		
Thursday, 9th June 2022	Practice PYQ CN	Practice PYQ CN		
Friday, 10th June 2022	Practice PYQ OS	Practice PYQ OS		
Saturday, 11th June 2022	Practice PYQ Discrete Math	Practice PYQ Discrete Math		
Sunday, 12th June 2022	Practice DSA	Practice DSA		
Monday, 13th June 2022	Practice COA	Practice COA		
Tuesday, 14th June 2022	Practice CG	Practice CG		
Wednesday, 15th June 2022	Practice Cloud Computing	Practice Web Programming		









Post your doubts in comment section. Stay subscribed for all updates.

