

STA630-Research Methods Solved MCQs for Midterm Exam Preparation-Solved With Reference- New Pattern Spring 2016- Prepared and Written by Sparkle Fairy

Which of the following is a systematic and organized process of finding a solution to a problem?

- **Research (Page-14)**
- **Analysis**
- **Hypothesis**
- **None of the above**

Reference:

Research:

Research is a systematic and organized process of finding solution of a problem after deep study and analysis of situational factors. It is basically gathering information needed to answer a question.

Value of Research:

1. Research helps in solving a problem.

2. Research helps to develop methodologies (theories and models)

3. We can simply say that research helps to identify problems and solutions

Which of the following is true about research?

- **It helps to identify problems and solutions**
- **It helps to generate theories and models**
- **It is all about gathering information needed to answer a question**
- **All of the above (Page-15)**

Which of the following is a way to produce knowledge based on truth and attempts to be universal?

- **Philosophy**
- **Science (Page-17)**
- **Behavior development**

- None of the above

Reference:

Definition of Science: It is a way to produce knowledge which is based on truth and is universal. It is a method, a procedure to produce knowledge or discover principles, laws and theories through the process of observation and re-observation.

A well organized and systematic procedure for the creation of knowledge is known as?

- Hypothesis
- Scientific method (Page-17)
- Theory
- None of the above

Reference:

Definition of Scientific method:

Scientific method is an organized and systematic procedure used for creation of knowledge.

Which of the followings imply the use of ‘sensory experiences’ for the study of the phenomena?

- Observation (Page-17)
- Re-observation
- Theory development
- Law development

Which of the following is characteristic of scientific method?

- Empirical
- Deterministic
- Cumulative
- All of the above (Page-18)

Reference:

Characteristics of scientific method:

1. Empirical
2. Deterministic
3. Cumulative
4. Verifiable
5. Ethical and Ideological neutrality
6. Statistical generation
7. Rationalism

Which of the following is a true statement?

- Science is a rational activity
- Science is based on the assumption that everything happens for a reason
- Scientific method is concerned with the realities that are observable through sensory experiences.
- All of the above are true (Page-17,18,19)

“All men are mortal, Ali is a man: therefore Ali is mortal” this statement is an example of which type of logic?

- Deductive logic (Page-19)
- Inductive logic
- Inference
- Proposition

Reference:

Deductive and Inductive Reasoning:

Deductive logic or deduction is moving from general principles to specific (particular instances). One starts from general laws and applies it to specific instances whereas inductive logic or induction is moving from specific to general principles or from facts to theories. In induction, one starts from observed data and forms a generalization which explains the relationship b/w the observed objects.

Which of the following is the purpose of doing research?

- Explore a new topic
- Describe a social phenomenon
- Explain why something occurs
- All of the above (Page-21)

Reference:

The purpose of doing research is to

1. Explore a new topic

2. Describe a social phenomenon

3. Explain why something occurs

Which of the following is a type of research which is used to explore a new topic or issue in order to learn about it?

- Explanatory research
- Descriptive research
- Exploratory research(Page-21)
- Basic research

Reference:

Exploratory research is type of research which is used to explore a new topic or issue in order to learn about it. It addresses the “what” question

Limitations:

Exploratory research is difficult to conduct because there are few guidelines to follow

Goals/target/purpose of exploratory research:

Exploratory research is conducted in order to

1. Become familiar with the basic facts

2. Develop well-grounded (strong) picture of the situation

3. Generate new ideas or hypothesis

4. Develop techniques and sense of direction for the future research

Which of the following is a source of exploratory research?

- **Secondary data analysis**
- **Experience surveys**
- **Case studies and pilot studies**
- **All of the above (Page-22)**

Reference:

Sources of Exploratory research:

In case of exploratory research, researcher may use different sources to gather information such as

1. Experience survey- in which researcher tries to contact the individuals (people) who have knowledge about particular research problem

2. Secondary data analysis-it is quick source of background information which is preliminary review of data collected for another purpose (review of already collected data) to clear issues in the early stages of research.

3. Case study-the purpose of case study is to get information from one or few situations that are similar to the researcher's problem situation.

4. Pilot study-it implies that some aspect of research is done on a small scale and for this purpose, focus group discussions can be carried out.

Which of the following research is used to describe a social phenomenon, present a picture of specific detail of a situation, social settings or relationships?

- **Explanatory research**
- **Descriptive research (Page-22)**
- **Exploratory research**
- **Basic research**

Which of the following type of research describes the characteristics (properties) of a population or phenomenon?

- Explanatory research
- Descriptive research (Page-22)
- Exploratory research
- Experimental research

Reference:

Descriptive research is used to describe a social phenomenon. It describes the characteristics of a population or phenomenon. It presents picture of specific details of a situation. It looks for the answer of who, what, when, where and how questions for example what is this social activity really about? 10% of people in a rural area do smoking etc

Goals of descriptive research:

1. It describes the situation in terms of its characteristics
2. Gives a verbal or numerical picture of the situation
3. It classifies the information (creates a set of classes or categories)
4. Presents background information
5. Helps to present social settings and relationships

Which of the following research is used to explain the reason for something that occurs i.e. why things are the way they are?

- Explanatory research (Page-22)
- Descriptive research
- Exploratory research
- Applied research

Reference:

Explanatory research is a type of research which focuses on “why”. It helps to find out the reasons for something that occurs like why things are the way they are. It is used to explain the reasons behind something. For example finding the reasons behind why people do

smoking, why students fail in the college or why do parents abuse/punish their children etc (what are the reasons behind it)

“10% parents abuse their children” this statement is an example of which of the following type of research?

- Exploratory research
- Explanatory research
- **Descriptive research (Page-22)**
- Applied research

“Why parents punish or abuse their children?” this statement is the main focus of which of the following type of research?

- Exploratory research
- **Explanatory research (Page-22)**
- Descriptive research
- Basic research

Which of the following is source of descriptive research?

- Surveys
- Field research
- Content analysis
- **All of the above (Page-22)**

Reference:

Sources /methods or techniques used to collect information for descriptive research are

1. Content analysis

2. Surveys

3. Field research

Which of the following is a type of research according to “purpose”?

- **Applied research**
- **Basic research**
- **Descriptive research (Page-23)**
- **Cross sectional research**

Reference:

Research is divided into following categories according to the purpose of research

1. Explanatory research

2. Descriptive research

3. Exploratory research

Which of the following is a type of research according to “uses of research”?

- **Applied research (Page-23)**
- **Explanatory research**
- **Longitudinal research**
- **Cross-sectional research**

Reference:

Research is divided into following categories according to the uses of research

1. Basic research-

It supports theories and is a source of most new scientific ideas and ways of thinking about the world.

2. Applied research-

It provides immediate practical use (it can be used practically such as to solve specific policy problems or helps to accomplish (achieve) tasks.

Which of the following is a type of applied research?

- Action research
- Impact assessment research
- Evaluation research
- All of the above (Page-25)

Reference:

There are three types of applied research

1. Action research:

It is type of applied research that treats the knowledge as a form of power and removes the line b/w research and social action. It assumes that knowledge develops from experience (experience of social political action)

2. Impact assessment research:

Purpose of this applied research is to estimate the likely results of a planned change

3. Evaluation research:

It focuses on the question “Did it work”? It focuses on making value judgment on based on evidence about the achievement of the goals. For example, did the program work? Did it achieve its objectives?

Which of the following are the types of evaluation research?

- Formative and Summative research (Page-25)
- Basic and Applied research
- Cross sectional and longitudinal research
- Exploratory and Descriptive research

Reference:

There are two types of evaluation research

1. Formative research:

Formative evaluation is built in monitoring or continuous feedback on a program (used for program management)

2. Summative research:

Summative evaluation looks at final program outcomes (results)

Which of the following is a type of research according to “time dimension”?

- **Basic and Applied research**
- **Cross- sectional and longitudinal research (Page-25)**
- **Exploratory and Descriptive research**
- **Basic and applied research**

Reference:

There are two types of research according to the time dimension

1. Cross-sectional research:

It is usually the simplest and less costly (cheap). In this research, researchers observe at one point in time.

Disadvantage:

It cannot capture the change processes

2. Longitudinal research:

Researcher observes or examines feature of people or other units at more than one time. It is more costly and complex but it is also more powerful to deal with change (look for answers to questions about change)

In which type of research, same type of information is collected on a group of people or other units across multiple time periods?

- **Longitudinal research**

- Cross-sectional research
- Time series research (Page-25)
- Basic research

Reference:

Time series research is a type of longitudinal research in which same type of information is collected on a group of people or other units across multiple time periods, such as tracking the characteristics of students registered for STA630 course (age, gender, subject, geographical distribution) over a period of 4 years

In which type of research, the researcher observes exactly the same people, group or organization across time periods?

- Panel study (Page-25)
- Longitudinal research
- Focus group
- Content analysis

Reference:

Panel study:

In panel study which is the type of longitudinal research, the researcher observes exactly the same people, group or organization across time periods

In which type of research the researchers study a group of people who share similar life experience in a specific time period?

- Panel study
- Focus group
- Content analysis
- Cohort analysis (Page-25)

Reference:

Cohort analysis:

It is a type of longitudinal research which is similar to panel study but in this research, a group of people who share similar life experience in a specific time period is studied. Such as all people born in the same year, all people hired at the same time or retire at the same time, all people who graduate in a given year etc. It does not look for the exact same people but the people who share similar life experience in a specific period of time

Which of the following is a type of longitudinal research?

- Panel study
- Time series research
- Cohort analysis
- All of the above (Page-25)

Reference:

There are three types of longitudinal research.

1. Cohort analysis:

It is a type of longitudinal research which is similar to panel study but in this research, a group of people who share similar life experience in a specific time period is studied. Such as all people born in the same year, all people hired at the same time or retire at the same time, all people who graduate in a given year etc. It does not look for the exact same people but the people who share similar life experience in a specific period of time

2. Panel study:

In panel study which is the type of longitudinal research, the researcher observes exactly the same people, group or organization across time periods.

3. Time series research:

Time series research is a type of longitudinal research in which same type of information is collected on a group of people or other units across multiple time periods, such as tracking the characteristics of students registered for STA630 course (age, gender, subject, geographical distribution) over a period of 4 years

Which of the following techniques are used to conduct qualitative research?

- Case study, field research, focus group discussion (Page-26)

- Focus group discussion, experiments, surveys
- Case study, survey, experiments
- Experiments, field research, content analysis

Reference:

Case study, focus group discussions and field research are the methods or techniques used for qualitative research

Which of the following techniques are used to conduct quantitative research?

- Focus group discussion, experiments, surveys
- Case study, survey, experiments
- Experiments, field research, content analysis
- **Survey, experiments, content analysis, statistics (Page-26)**

Reference:

Surveys, experiments, content analysis and existing statistics are the techniques or methods that are used to conduct quantitative research.

Anything that varies or changes in value is known as?

- **Variable (Page-36)**
- Constant
- Both a and b
- None of the above

Reference:

Anything that varies or changes in value is known as variable. For example gender is a variable it can take value of male or female, marital status is a variable, family income is a variable, a person's attitude towards women empowerment is a variable etc

A type of variable which comes b/w dependent and independent variable and shows a link or mechanism b/w them

- **Moderating variable**

- **Intervening variable (Page-37)**
- **Continuous variable**
- **Discrete variable**

Reference:

Intervening variables:

Intervening variable is a type of variable which comes b/w dependent and independent variable and shows a link or mechanism b/w them. It acts as dependent variable with respect to independent variable and acts as independent variable towards the dependent variable.

Which of the following variable is also named as confounding factor?

- **Continuous variable**
- **Discrete variable**
- **Moderating variable**
- **Extraneous variable (Page-38)**

Reference:

Extraneous variables are also named as confounding factors

Which of the following variable modifies the original relationship b/w dependent and independent variable and has strong effect on dependent/independent variable relationship?

- **Continuous variable**
- **Discrete variable**
- **Moderating variable (Page-37)**
- **Intervening variable**

Reference:

Moderating variable is one that modifies the original relationship b/w dependent and independent variable and has strong effect on dependent/independent variable relationship.

A variable which can be divided into fractions is known as?

- **Continuous variable (Page-36)**
- **Discrete or discontinuous variable**
- **Dependent variable**
- **Independent variable**

Reference:

Continuous variable:

Continuous variable is a type of variable which can be divided into fractions. Income, age, temperature or test score are the examples of continuous variables

A variable which cannot be divided into fractions is known as?

- **Discrete or discontinuous variable (Page-36)**
- **Dependent variable**
- **Independent variable**
- **Continuous variable**

Reference:

Discrete variable:

It is a type of variable which cannot be divided into fractions. It is also known as categorical variable classificatory or discontinuous variable.

The variable that has effect on other variable and the variable that is the effect, outcome or result of another variable is known as?

- **Independent variable, Dependent variable (Page-36)**
- **Dependent variable, Independent variable**
- **Moderate variable, independent variable**
- **Independent variable, Intervening variable.**

Reference:

The variable that has effect on other variable is known as independent variable and it is identified by the symbol of X and the variable that is the effect, outcome or result of another variable is known as dependent variable and is identified by the symbol of Y

A type of hypothesis which contains only one variable is known as?

- Descriptive hypothesis (Page-39)
- Rational hypothesis
- Alternative hypothesis
- Null hypothesis

Reference:

Descriptive hypothesis:

It is a type of hypothesis which consists of only one variable and it is also called univariate hypothesis for example level of commitment among the officers of organization which is higher than average is example of descriptive hypothesis.

Which of the following hypothesis describes relationship b/w two variables?

- Alternative hypothesis
- Null hypothesis
- Relational hypothesis (Page-39)
- Non-directional hypothesis

Reference:

Relational hypothesis:

It describes a relationship b/w two variables (positive or negative, more than or less than terms are used for relational hypothesis)

Which of the following is a hypothesis in which the direction of association has not been specified?

- Alternative hypothesis
- Null hypothesis

- **Non-directional hypothesis (Page-40)**
- **Research hypothesis**

Reference:

Non-directional hypothesis:

It is a type of hypothesis in which the direction of association has not been specified.

“Level of job commitment of the officers is positively associated with their level of efficiency” this statement is an example of which type of hypothesis?

- **Alternative hypothesis**
- **Null hypothesis**
- **Co-relational hypothesis (Page-40)**
- **Casual/Explanatory hypothesis**

Which of the following hypothesis is used to test the hypothesis formulated (made) by researchers and states that there is no relationship b/w variable?

- **Alternative hypothesis**
- **Null hypothesis (Page-41)**
- **Research hypothesis**
- **Co-relational hypothesis**

Reference:

Null Hypothesis:

It is used to test hypothesis formulated or made by researchers. More importance is given to negative evidence than the positive one. Null hypothesis states that there is no relationship b/w the variables or relationship b/w variables is zero (variables are independent of each other)

Which of the following hypothesis states that there is relationship b/w the variables under study?

- **Research hypothesis**
- **Co-relational hypothesis**

- **Alternative hypothesis (Page-41)**
- **Descriptive hypothesis**

Reference:

Alternative hypothesis:

This hypothesis states that there is relationship b/w the variables under study. “There is a relation b/w the level of job commitment (job loyalty) of the officers and the level of efficiency” is an example of alternative hypothesis.

Which of the following hypothesis is the actual hypothesis formulated by the researcher which may also suggest the nature of relationship?

- **Research hypothesis (Page-41)**
- **Co-relational hypothesis**
- **Null Hypothesis**
- **Alternative hypothesis**

Reference:

Research hypothesis is the actual hypothesis formulated by the researcher which may also suggest the nature of relationship for example, level of commitment of the officers is positively associated with level of efficiency

Which of the following statement is true about hypothesis?

- **It provides the direction of the study**
- **It identifies both relevant and irrelevant facts**
- **It provides framework for organization of conclusions of the findings**
- **All of the above (Page-41)**

Reference:

Role of Hypothesis:

1. Hypothesis provides the direction of the study

2. It identifies both relevant and irrelevant facts

3. It provides framework for organization of conclusions of the findings

4. It suggests suitable form of research design

Which of the following is characteristic of hypothesis?

- Hypothesis must be conceptually clear
- It must be specific and related to body of theory
- It must have empirical referents
- **All of the above (Page-42)**

Reference:

Characteristics of hypothesis:

1. Hypothesis must be conceptually clear

2. It should be specific

3. It must have empirical referents (verifiable and realistic references)

4. It must be related to a body of theory

5. It should be related to available techniques of research

Which of the following identifies and labels the important variables in the situation that are relevant to the problem identified?

- **Theoretical framework (Page-49)**
- Report
- Research review
- None of the above

Reference:

Theoretical framework identifies and labels the important variables in the situation that are relevant to the problem identified. It explains the relationships among the variables and logical links b/w these relationships. It also describes the nature and the direction of the relationships.

Which of the following is the right way to write a review?

- **Organizing common findings or arguments together**
- **Addressing more important ideas first**
- **Both a and b is true (Page-46)**
- **None of the above**

Reference:

A good Review:

The accurate way to write a review is to organize common findings or arguments together. The most accepted approach is to address the more important ideas first to logically link the statement or to note dependency or weakness in the present.

Which of the following is a document which presents a plan for a project to reviewers for evaluation?

- **Review**
- **Research proposal (Page-52)**
- **Theoretical framework**
- **None of the above**

Reference:

Research proposal:

Research proposal is a document which presents a plan for a project to reviewers for evaluation.

It has following sections

1. Introduction

Background of study, objectives, Significance (Importance)

2. Research design:

Data collection techniques

Population

Sample

Tools for data collection

Data gathering

Data processing and analysis

3. Report writing

4. Budget

5. Time schedule

6. Team for researchers

Which of the following indicates the start of research?

- **Selecting a topic (Page-51)**
- **Data collection**
- **Problem definition**
- **Generation of hypothesis**

Reference:

A Research Process:

Research process involves following steps through which a researcher goes

1. Selection of a topic

2. Preliminary data collection

3. Problem definition

4. Theoretical framework

5. Generation of hypothesis

6. Research design

7. Data collection, data processing and analysis

8. Testing the hypothesis, answering the research question

9. Report writing

Which of the following is most common method for the collection of primary data?

- Observations
- **Surveys (Page-56)**
- Experiments
- None of the above

Which of the following is also known as “communication analysis”?

- Case study
- Focus group discussion
- **Content analysis (Page-56)**
- Observation technique

Which of the following holds the greatest potential for establishing cause and effect relationships?

- **Experiments (Page-56)**
- Observation techniques
- Case study
- Focus group discussion

Which of the following is an in-depth analysis of a unit i.e. an individual person, a couple, a group or an organization?

- Communication analysis
- **Case study (Page-56)**
- Experiments
- Observations

Which of the following is a discussion of an issue (public concern, product or television program etc) by 6-12 people with a moderator for 1-2 hours?

- **Focus group discussions (Page-56)**
- **Experiments**
- **Content analysis**
- **Survey**

Reference:

Focus group discussions:

Focus group discussion is a discussion of an issue (public concern, product or television program etc) by 6-12 people with a moderator for 1-2 hours. It is helpful in exploratory research or producing new ideas for hypothesis as well as interpretation of results (evaluate the outcomes or results). It produces qualitative information

Which of the following occurs when respondents are told only a part of the truth or when the truth is fully compromised?

- **Issue**
- **Pleasure**
- **Deception (Page-64)**
- **Failure**

Reference:

Deception occurs when respondents are told only a part of the truth or when the truth is fully compromised. It means the complete truth is not told and kept hidden from the respondents

Which of the following is the process of taking a construct and refining it by giving it a conceptual or theoretical definition?

- **Conceptualization (Page-68)**
- **Operationalization**
- **Both a and b**
- **None of the above**

Which of the following is the process of linking conceptual definition to a specific set of measurement techniques or procedures?

- Conceptualization
- **Operationalization (Page-68)**
- Both a and b
- None of the above

Which of the following refers to continue series of categories?

- **Scale (Page-71)**
- Measurement
- Both a and b
- None of the above

Which of the following is a type of scale in number or letters assigned to objects serve as label for identification and classification, i.e. in this type of scale order does not matter?

- **Nominal scale (Page-74)**
- Ordinal scale
- Interval scale
- Ratio scale

A type of scale which includes the characteristics of nominal scale with an indicator of order- in this type of scale, classification or assignment of objects is done in an order is known as?

- **Ordinal scale (Page-75)**
- Interval scale
- Ratio scale
- Nominal scale

A type of scale which includes the characteristics of nominal scale and ordinal scale with the concept of equality of interval (time distance) is known as?

- **Interval scale (Page-75)**
- Ratio scale

- **Nominal scale**
- **Ordinal scale**

Which of the following scale ensures the provision of absolute zero or origin?

- **Ratio scale (Page-75)**
- **Nominal scale**
- **Ordinal scale**
- **Interval scale**

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