

8. The process of selecting a subset of a population for a survey is known as
 - a. Survey research
 - b. Representative
 - c. Triangulation
 - d. Sampling
9. A researcher selects a probability sample of 100 out of the total population. It is called
 - a. A quota sample
 - b. A simple random sample
 - c. A stratified random sample
 - d. A systematic sample
10. To ensure the accuracy of a research, the sample should be
 - a. Taken randomly
 - b. Fixed by quota
 - c. Representative of the population
 - d. Purposive
11. The null hypothesis is always tested at:
 - a. 0.05 level of significance
 - b. 0.01 level of significance
 - c. 0.10 level of significance
 - d. Both 0.01 and 0.05 levels of significance
12. Which one is not true about the quasi experimental research design?
 - a. To make comparison among different groups of individuals
 - b. Sample selected through randomization.
 - c. Samples are not selected through randomization.
 - d. Groups are not equal.
13. When there are two or more independent variables in a study and researcher need to test several hypotheses, in this case, which research design researcher might think of?
 - a. True experimental research design
 - b. Factorial design
 - c. Quasi experimental research design
 - d. Non experimental research design
14. Which of the following problems require research?
 - a. Why people of Assam preferred Tea than Coffee?
 - b. Why brand X is more popular than brand Y
 - c. Why Screen time is increasing behavioural problem among young children
 - d. All of the above
15. Main characteristics of true experimental design are
 - a. Control and manipulation
 - b. Control and randomization
 - c. Randomization and manipulation
 - d. Control, Manipulation, and randomization
16. "H: The mean of the adjustment scores of the teachers of government schools in Haryana state is higher than the mean of the adjustment scores of the teachers of non-government schools" is the hypothesis formulated by a researcher. Identify the type of hypothesis.
 - a. Directional hypothesis
 - b. Non-directional hypothesis
 - c. Null hypothesis
 - d. Alternative hypothesis
17. A researcher divides the school students on the basis of gender and then by using the random digit table, he selects some of them from each group. This process is called
 - a. Stratified sampling
 - b. Stratified random sampling
 - c. Representative sampling
 - d. None of the above

18. We use factorial design
- a. To know the relationship between two variables
 - b. To test the hypothesis
 - c. To know the difference between two variables
 - d. To know the difference among many variables
19. When studying an active independent variable, an interventions or treatment given to group of participants is called_____.
- a. Experimental group
 - b. Control group
 - c. Both (a) and (b)
 - d. Neither (a) or (b)
20. Which of these are the steps in the sampling process?
- a. Choosing the sampling frame
 - b. Defining the target population
 - c. Identifying and selecting the method of sample
 - d. All of these

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(Descriptive)

Time : 2 Hr. 30 Mins.

Marks : 50

[Answer question no.1 & any four (4) from the rest]

1. a) What are the properties of NPC? 7+3=10
b) Locate the position in NPC with the help of diagram-
i) The Mean, Median and Mode in the normal curve
ii) $Z = +2.5 \sigma$ and $Z = -1.5 \sigma$ in normal curve
2. What is research design? Illustrate the types of true experimental research design with symbolic representation. 6+4=10
3. What do you mean by correlation coefficient? Find out the Product Moment correlation coefficient: 3+7=10

Individuals	Scores in test X	Scores in test Y
A	15	40
B	18	42
C	22	50
D	17	45
E	19	43
F	20	46
G	16	41
H	21	41

4. An intelligence test was administered on a group of 500 cases of class 5. The Mean I.Q. of the students was found 100 and S.D. of I.Q scores was 16. Find how many students of class 5 having the I.Q
i) Below 80 and
ii) Above 120 5+5=10
5. What does hypothesis mean in research? Formulate a research problem of your interest and write two objectives for your research problem. Formulate a null hypothesis for your research problem. 4+3+3=10
6. Discuss the following concepts: (any two) 5+5=10
i) Characteristics of good research problem
ii) What are the sources of stating a research problem?
iii) Discuss divergence in normality?
7. a) What is a chi square test used for? Why chi square is said test of 'goodness of fit'? 2+3+5=10
b) A one-rupee coin was tossed for 40 times and the observed frequencies are 30 heads and 20 tails, using the chi-square test. Find out whether this result is better than mere "chance"?
8. Answer the following questions within 300 words: 5+5=10
a) Population and sample
b) Sampling and any one method of drawing random sampling.

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