



**M.Tech. III Semester Degree Examination, April/May - 2024**

**MINERAL PROCESSING**

**Research Methodology**

**(NEP)**

Time : 1 Hour

Maximum Marks : 30

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1. Research is \_\_\_\_\_.  
(A) A purposeful, systematic activity  
(B) Conducted for purely academic purposes  
(C) Conducted to answer questions about practical issues  
(D) A random, unplanned process of discovery
  
2. What is a hypothesis in research ?  
(A) A conclusion drawn from data analysis  
(B) Summary of Research findings  
(C) Measurement of data accuracy  
(D) A statement of predicted relationship between variables
  
3. Which of the following is a measure of central tendency in statistics ?  
(A) Standard deviation                      (B) Correlation Co-efficient  
(C) Mean    (D) Chi-square test
  
4. Which of the following is an example of a primary source of data ?  
(A) Research article                      (B) Textbook  
(C) Meta analysis                      (D) Interview transcript
  
5. What is a research instrument ?  
(A) The research question                      (B) The research design  
(C) The data collection method                      (D) The data analysis plan



6. What is the appropriate statistical test to test the association between two categorical variables in a Research study ?
- (A) T-test (B) Anova  
(C) Regression Analysis (D) Chi-square test
7. \_\_\_\_\_ is not a characteristic of fundamental research.
- (A) It is exploratory in nature  
(B) It is aimed at developing new theories  
(C) It is focused on solving practical problems  
(D) It is conducted without a specific application
8. \_\_\_\_\_ is not a type of research data.
- (A) Primary data (B) Secondary data  
(C) Tertiary data (D) Meta data
9. What is the primary purpose of inferential statistics in research ?
- (A) To summarise and describe data  
(B) To explore relationship between variables  
(C) To interpret qualitative data  
(D) To test hypothesis and make inference about a population
10. Which of the following is an example of qualitative research method ?
- (A) Survey (B) Case study (C) Experiment (D) Meta analysis
11. A null hypothesis is :
- (A) Subjective in nature  
(B) The same as research hypothesis  
(C) When there is difference between variables  
(D) When there is no difference between the variables
12. The research that aims at immediate application is :
- (A) Action research (B) Empirical research  
(C) Conceptual research (D) Fundamental research



13. A research is a \_\_\_\_\_.
- (A) Lab experiment (B) Systematic and scientific enquiry  
(C) Report (D) Procedure
14. Action research is :
- (A) An applied research  
(B) A longitudinal research  
(C) A research carried out to solve immediate problem  
(D) All of the above
15. To test null hypothesis, a researcher uses :
- (A)  $\chi$  - test (B) t - test  
(C) Anova (D) Factorial analysis
16. Books and records are primary source of data in :
- (A) Clinical research (B) Historical research  
(C) Laboratory research (D) Participatory research
17. In the process of conducting research, formulation of hypothesis is followed by :
- (A) Analysis of data (B) Collection of data  
(C) Statement objectives (D) Selection of research tools
18. A statistical measure based upon the entire population is called parameter while measure based upon a sample is known as :
- (A) Inference (B) Statistics  
(C) Sample parameter (D) None of these
19. The first step of research is :
- (A) Finding a problem (B) Selecting a problem  
(C) Searching a problem (D) Identifying a problem
20. An abstract is a :
- (A) Synopsis (B) Quotations (C) Glossary (D) Bibliography



- 21.** Conferences are meant for :
- (A) Group discussion (B) Multiple target groups  
(C) Showcasing new research (D) All of the above
- 22.** The study in which the investigators attempt to trace an effect is known as :
- (A) Survey research (B) Historical research  
(C) Summative research (D) Ex-post facto research
- 23.** Which one of the following is not a non parametric test ?
- (A) t-test (B) run test (C) sign test (D) chi-square test
- 24.** Which one of the following is an indication of the quality of research journal ?
- (A) h-index (B) g-index (C) i10-index (D) impact factor
- 25.** Field work based research is classified as :
- (A) Historical (B) Empirical (C) Biographical (D) Experimental
- 26.** Increasing the sample size has the following effect upon the sampling error :
- (A) It increases the sampling error  
(B) It reduces the sampling error  
(C) It has no effect on the sampling error  
(D) All of the above
- 27.** Bibliography means :
- (A) Foot note (B) Quotations  
(C) List of books referred (D) Biography
- 28.** Scopus was launched in the year :
- (A) 2002 (B) 2000 (C) 2008 (D) 2004



**29.** What is random sample in research ?

- (A) A sample that is selected by chance
- (B) A sample that is selected based on specific criteria
- (C) A sample that is selected from population in a systematic way
- (D) A sample that is selected based on convenience

**30.** The main characteristic of scientific research is :

- (A) Empirical
- (B) Theoretical
- (C) Experimental
- (D) All of the above

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