

Ph.D. ENTRANCE EXAMINATION, APRIL 2021**EDUCATION**

Time : Two Hours

Maximum : 100 Marks

Part A*All 25 questions under this part carries 2 marks each.**Put X mark in the concerned column against each question in the responses sheet provided.*

1. A researcher conducted three experiments with 100 subjects each, following uniform design, instead of one experiment with 300 subjects. This is known as :
 - (a) Replication.
 - (b) Manipulation.
 - (c) Observation.
 - (d) Validation.
2. The act of publishing the same data and results in more than one journal or publication refers to which of the following professional issues ?
 - (a) Partial publication.
 - (b) Duplicate publication.
 - (c) Full publication.
 - (d) Plagiarism.
3. Why is it important that personal data about research participants be kept within secure confidential records ?
 - (a) To observe principle of research ethics.
 - (b) To sell the data at a later stage to recover the cost of research.
 - (c) To keep secrecy from other researchers.
 - (d) So that nobody can manipulate the results of the findings.
4. The importance of measurement in quantitative research is that :
 - (a) It allows us to delineate fine differences between people or cases.
 - (b) It provides a consistent device or yardstick.
 - (c) It allows for precise estimates of the degree of relationship between concepts.
 - (d) All the above.

Turn over

5. The degree to which results of a study can be extended to other settings or conditions describes :
- (a) Population generalizability.
 - (b) Conclusions researchers make about a random sample.
 - (c) Conclusions researchers make about information uncovered in research study.
 - (d) Ecological generalizability.
6. A research design is :
- (a) A common method adopted by all researchers to carry out research.
 - (b) The final choice between using qualitative or quantitative methods.
 - (c) Presentation of research findings.
 - (d) A framework for every stage of the data collection and its analysis.
7. When a research problem is related to heterogenous population, the most suitable method is :
- (a) Cluster sampling.
 - (b) Stratified sampling.
 - (c) Convenient sampling.
 - (d) Lottery method.
8. An investigator wants to study the vocational aspirations of visually challenged children in a wide geographical area. He should select his sample by using :
- (a) Simple random sampling.
 - (b) Stratified sampling.
 - (c) Purposive sampling.
 - (d) Convenient sampling.
9. Which of the following variables cannot be expressed in quantitative terms ?
- (a) Socio-economic status.
 - (b) Marital status.
 - (c) Numerical aptitude.
 - (d) Professional attitude.
10. A researcher selects a probability sample of 100 out of for a total population. Which of the following can not be used for selecting sample ?
- (a) A quota samples.
 - (b) A simple random sample.
 - (c) A stratified random sample arch.
 - (d) A systematic sample.

11. 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.
12. To ensure accuracy of a research, the sample should be :
- (a) Taken randomly.
 - (b) Fixed by quota.
 - (c) Representative of the population.
 - (d) Purposive.
13. Which of the following is a non-probability sample ?
- (a) Quota sample.
 - (b) Simple random sample.
 - (c) Purposive sample.
 - (d) Both (a) and (c).
14. The feasibility of a research study generally depends upon :
- (a) Cost factor.
 - (b) Time required to conduct research.
 - (c) Skills set of the researcher.
 - (d) All the above.
15. An empiricist believes that :
- (a) Natural science methods should not be applied to social science research.
 - (b) Social science methods cannot be applied in natural sciences.
 - (c) Knowledge is acquired through our sensory perceptions.
 - (d) None of the above.

16. The experimental study is based on :
- (a) Law of single variable.
 - (b) Manipulation.
 - (c) Both (a) and (b).
 - (d) None of the above.
17. What is the position held by a positivist as far as acquiring knowledge is concerned ?
- (a) A general positive attitude towards research.
 - (b) Scientific research should be based on value-free, empirical observations.
 - (c) Exact knowledge can be acquired from the society.
 - (d) None of the above.
18. The two main approaches of a research are :
- (a) Data collection and data analysis.
 - (b) Surveys and questionnaires.
 - (c) Sampling and data collection.
 - (d) Qualitative and quantitative.
19. Qualitative research is :
- (a) Without any specific purpose.
 - (b) Primarily concerned with in-depth exploration of phenomena.
 - (c) Deals with the collection and analysis of numerical data.
 - (d) None of the above.
20. Which of the following is not a characteristic of a researcher ?
- (a) Industrious and persistent.
 - (b) Specialist rather than a generalist.
 - (c) Objective.
 - (d) Not versatile in his interest and even in his native abilities.
21. An important practical issue to consider while designing a research project is :
- (a) An interesting theoretical perspective.
 - (b) Add to knowledge of researcher only.
 - (c) Availability of time and other resources.
 - (d) None of the above.

22. Which of the following research specifically requires objectivity to discover facts and causes from the data gathered for the purpose ?
- (a) Quantitative research. (b) Fundamental research.
(c) Qualitative research. (d) Action research.
23. In psychology and education, experimental research is also termed as :
- (a) S-R (stimulus-response) research.
(b) Analytical research.
(c) Historical research.
(d) Ex-Post Facto research.
24. Fundamental research is usually carried out in :
- (a) Classroom. (b) Field setting.
(c) Laboratory conditions. (d) Social setting.
25. The research which is exploring new facts through the study of the past is called :
- (a) Philosophical research.
(b) Historical research.
(c) Mythological research.
(d) Content analysis.

(25 × 2 = 50 marks)

Part B

*Answer any **five** of the following.*

Each question carries 10 marks.

Answer in the answer booklet provided.

1. Explain Type-I and Type-II errors with examples.
2. "Triangulation can substantially increase the credibility or trustworthiness of a research finding". Justify the statement by explaining meaning and objectives of triangulation in research.
3. Discuss various threats to internal validity in an experimental research design. How will you minimise these threats as a researcher ?
4. Explain the different Non-Random sampling methods with examples.

Turn over

5. Explain the conditions and limitations for applying Chi-square test.
6. What precautions would you take while using the data from secondary sources ?
7. What do you mean by research report ? What are the different types of hypotheses ? Formulate three hypotheses relating to your research study.
8. Explain the principles of ethical consideration in Educational Research.

(5 × 10 = 50 marks)