

(6 pages)

Reg. No. :

Code No. : 5924

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M.Sc. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2020.

Third Semester

Computer Science – Core

RESEARCH METHODOLOGY

(For those who joined in July 2017 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. The sampling method which involves purposive selection of particular units of the universe for constituting a sample which represents the universe is _____.
 - (a) Simple Random sampling
 - (b) Deliberate sampling
 - (c) Systematic sampling
 - (d) Quota sampling

2. The research which aims at finding a solution for an immediate problem facing a society or an industry/organization is
- (a) Descriptive Research
 - (b) Qualitative Research
 - (c) Conceptual Research
 - (d) Applied Research
3. The pre-determined plots or the blocks, where different treatments are used are known as
- (a) Experimental units
 - (b) Control group
 - (c) Research Hypothesis
 - (d) Confounded relationship.
4. A population from which a sample is to be drawn does not constitute a homogeneous group
_____ sampling is applied.
- (a) Systematic sampling
 - (b) Cluster sampling
 - (c) Sampling with Probability
 - (d) Stratified sampling

5. A system of assigning number symbols to events in order to label them are known as
 - (a) Nominal Scale
 - (b) Ordinal Scale
 - (c) Interval scale
 - (d) Ratio Scale
6. The procedure of assigning numbers to various degrees of opinion, attitude and other concepts is
 - (a) Measuring
 - (b) Sealing
 - (c) Reliability
 - (d) Validity
7. A procedure for testing the difference among different groups of data for homogeneity is
 - (a) Tabulation
 - (b) Coding
 - (c) ANOVA
 - (d) Data Adjusting
8. The detection and removal of errors inconsistencies in data set is known as
 - (a) Editing
 - (b) Data Cleaning
 - (c) Tabulation
 - (d) Graphical Representation
9. A method which is used to solve a combinatorial problem near optimally infinite time is called
 - (a) Heuristic
 - (b) BFS method
 - (c) DFS method
 - (d) Enumeration method

10. The task of drawing inferences from the collected facts after an analytical and/or experimental study is referred to
- (a) Report writing
 - (b) Algorithm
 - (c) Interpretation
 - (d) Procedures

PART B — ($5 \times 5 = 25$ marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Explain the four groupings for the objectives of Research.

Or

- (b) What is a research problem? Explain the components of a research problem.

12. (a) Write down the features of a good design in research.

Or

- (b) Explain the requirements of a Research Plan.

13. (a) What are the mathematical properties of Measurement Scales? Explain.

Or

- (b) Enumerate the difference between Questionnaires and Schedules.

14. (a) What are coding? Explain the rules for coding.

Or

- (b) Explain Tabulation in detail.

15. (a) Explain the Precautions in Interpretation.

Or

- (b) List few applications of Algorithmic Research Problems.

PART C — ($5 \times 8 = 40$ marks)

Answer ALL questions, choosing either (a) or (b)

Each answer should not exceed 600 words.

16. (a) Explain the types of Research.

Or

- (b) Explain the preparation of the report or the thesis in detail.

17. (a) Write a note on Non-probability and probability sampling.

Or

- (b) What are the important concepts Relating to Research design?

18. (a) Discuss the guidelines for constructing questionnaire.

Or

- (b) Explain the different scales for Measuring Attitudes of people.

19. (a) What is ANOVA? Explain the Basic principle of ANOVA.

Or

- (b) What are the steps involved in Two-way ANOVA technique? Explain.

20. (a) Enumerate the Layout of the Research Report.

Or

- (b) Explain Floyd's Algorithm.
