Register No.: …………………………　　Name: ………………………………………………

SAINTGITS COLLEGE OF ENGINEERING (AUTONOMOUS)

(AFFILIATED TO APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY, THIRUVANANTHAPURAM)

FIRST SEMESTER M. TECH DEGREE EXAMINATION (R), DECEMBER 2023
(Same for all Disciplines)
(2021 Scheme)

Course Code :　　**21GN100**

Course Name:　　**Research Methodology**

Max. Marks :　　**60**　　　　　　　　　　　　　　　　　**Duration: 3 Hours**

PART A
(Answer all questions. Each question carries 3 marks)

1. Distinguish between research methods and research methodology.
2. Define citation in research? Illustrate the relationship between impact factor and citation.
3. What are the factors to be kept in mind while selecting a research problem?
4. What is the meaning of 'scope' of a research? Give an example.
5. Differentiate between simple random sampling and stratified random sampling.
6. What are the basic tests for sound measurements?
7. Illustrate the term 'research hypothesis'.
8. Compare MS Word and LaTeX.

PART B
(Answer one full question from each module, each question carries 6 marks)

MODULE I

9. Explain the different types of research, clearly pointing out the difference between an experiment and a survey. (6)

OR

10. Distinguish between Copyright and Copyleft. State the broad criteria for awarding a Patent. (6)

MODULE II

11. Define 'research problem'. What is the necessity of defining research problem? (6)

OR

12. What is the purpose of literature survey in research? What are the various skills of the researcher demonstrated while conducting a literature review? (6)

MODULE III

13. Compare and contrast the research designs in respect of exploratory and descriptive research studies. (6)

OR

14. a) Describe the key points to be noted for sample design. (3)

    b) Explain the sources of errors in sampling. (3)

MODULE IV

15. Differentiate between primary and secondary data. What are the various methods for collection of primary data? (6)

OR

16. Briefly describe the method of data collection using questionnaires. What are qualities for a good questionnaire? (6)

MODULE V

17. Briefly explain the structure and components of a typical technical paper. What is the difference between abstract and conclusion in a research paper? (6)

OR

18. Explain the significance of a research report and narrate the various steps involved in writing such a report. (6)

MODULE VI

19. Why are communication skills important in research? Justify your answer with examples. (6)

OR

20. "The task of defining the research problem often follows a sequential pattern". Explain with a flow diagram. (6)

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