Register No: ………………………   Name: ....

SAINTGITS COLLEGE OF ENGINEERING (AUTONOMOUS)

(AFFILIATED TO APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY, THIRUVANANTHAPURAM)

FIRST SEMESTER B.TECH DEGREE EXAMINATION(R), NOVEMBER 2024

Computer Science and Engineering

(2024 SCHEME)

Course Code	:	**24EST1004-K**
Course Name	:	**Basics of Computer Science Engineering**
Max. Marks	:	**60** **Duration:2.5 Hours**

PART A

(Answer all questions. Each question carries 3 marks)

1. What are the steps involved in the development of a computer program?

2. Describe the role of a router in a network.

3. Explain the concept of multitasking in operating systems.

4. Explain the role of DBMS in handling large datasets.

5. What is feedback in UI design, and why is it essential?

PART B

(Answer one full question from each module, each question carries 9 marks)

MODULE I

6. a) Explain the importance of system software in managing computer resources.   5
   b) Discuss the types of system software.   4

OR

7. Compare and contrast machine language, assembly language, and high-level languages in computer programming.   9

MODULE II

8. a) What is a switch? Explain in detail.   5
   b) Explain how routers function within a network.   4

OR

9. Differentiate between augmented reality (AR) and virtual reality (VR) with suitable examples.   9

MODULE III

10. Explain how translation software helps in converting high-level code into machine-readable format.   9

OR

11. Illustrate the process of linking and loading in program execution.   9

MODULE IV

12. a) Define structured data and provide examples.   5
    b) Discuss how semi-structured data differs from structured data.   4

OR

13. a) Define network protocols and their importance.   5
     b) Discuss the difference between connection-oriented and connectionless protocols.   4

MODULE V

14. Explain the role of color psychology in UI design. Provide examples of how different colors can influence user behavior and perception on a website or app.   9

OR

15. Choose a well-known website or app and analyze how it adheres to the principles of user-centric design, focusing on layout, color, typography, and feedback mechanisms. Suggest improvements if any.   9

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