

Register No: Name:



SAINTGITS COLLEGE OF ENGINEERING KOTTAYAM, KERALA

(AN AUTONOMOUS COLLEGE AFFILIATED TO
APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY, THIRUVANANTHAPURAM)

FIRST SEMESTER M.TECH. DEGREE EXAMINATION(R), MARCH 2021 COMPUTER SCIENCE AND SYSTEMS ENGINEERING

Course Code: 20CSSET131**Course Name:** COMPUTER SYSTEMS ENGINEERING**Max. Marks:** 60**Duration:** 3 Hours

PART A

(Answer all questions. Each question carries 3 marks)

1. What is the importance of Complexity in engineering?
2. What is meant by abstraction in systems engineering.
3. Distinguish between Temporal locality and Spatial locality.
4. Write a short note on Congestion control.
5. Explain all-or-nothing atomicity with suitable example.
6. How can you ensure correctness in serialization process?
7. Define the term reconciliation.
8. What is the need for key exchange protocols?

PART B

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

MODULE I

9. Explain the importance of Systems engineering in Computer Science? (6)

OR

10. What characteristics of an airplane would you attribute to the system as a whole rather than to a collection of its parts? Explain why. (6)

MODULE II

11. Explain the various methods adopted to overcome complexity. (6)

OR

12. How do you enforce modularity with Virtualization? (6)

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MODULE III

13. How to translate virtual addresses into physical addresses? Discuss. (6)

OR

14. Explain the concept of modularity in terms of multilevel memory. (6)

MODULE IV

15. What are the challenges faced and their solution in Ethernet to Internet transactions? (6)

OR

16. With a suitable example, explain in detail about Software fault and Hardware fault. (6)

MODULE V

17. Explain about atomicity enforcement for threads. (6)

OR

18. Explain machine language atomicity. (6)

MODULE VI

19. Write a note on SSL protocol. (6)

OR

20. Explain Diffie -Hellman Key exchange protocol with an example. (6)
