QP CODE: UV25C015

Reg No : ………………….

Name : ………………….

ST MARY'S COLLEGE (AUTONOMOUS), THRISSUR-20

III SEMESTER (CBCSS-VUG) DEGREE EXAMINATIONS, OCTOBER 2025

B. Voc Software Development

SDC3IT13 : COMPUTER NETWORKING CONCEPTS

2024 Admission Onwards

Time: 2.5 Hours **Maximum Marks: 80**

Section A

Short answer type questions. ***2*** *Marks each.* ***(Ceiling 25)***

1. Compare circuit and packet switching.
2. What is datagram?
3. Define IEEE 802.11.
4. Explain DSSS and FHSS.
5. Compare FDMA and TDMA.
6. Explain Digital Signature.
7. Define Cryptography.
8. Define Frequency Reuse.
9. What is QoS?
10. Explain Link State Routing.
11. Differentiate Analog and Digital signals.
12. State the purpose of OSI model.
13. Explain satellite network.
14. Explain address mapping.
15. Define HLDC.

Section B

Paragraph types questions. ***5*** *Marks each.* ***(Ceiling 35)***

16. Explain Digital Data to Analog conversion techniques: ASK, FSK, PSK and QAM.
17. Explain CRC and demonstrate its working with a binary example.
18. Explain congestion control techniques used in TCP.
19. Describe the architecture and framing of IEEE 802.11.
20. Discuss the role of MAC techniques in wireless communication.

21. Compare symmetric and asymmetric cryptographic algorithms.
22. Describe the role of SNMP and CMIP in network management.
23. Describe the working of Hamming code for error correction.

Section C

Essay-type questions. Answer ***any two***. ***(10 x 2=20)***

24. Design a layered network model for a university campus.
25. Compare and contrast MAC techniques in cellular networks with examples.
26. Develop a secure client-server application using TCP sockets and encryption.
27. Evaluate latest trends in wireless communication and remote sensing.

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