QP Code: U25C046

Reg. No : ....
Name : ....

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

III SEMESTER (FYUGP) DEGREE EXAMINATIONS, OCTOBER 2025

BCA

BCA3CJ202 : COMPUTER NETWORKS

2024 Admission Onwards

(Credits: 4)

Time: 2 Hours **Maximum Marks: 70**

Section A

*Answer **all**. Each question carries **3** Marks.* ***(Ceiling: 24 Marks)***

1. Compare the functions of the Network layer and the Data Link layer.
2. Compare FSK and PSK.
3. Explain why guard bands are necessary in FDM.
4. Distinguish between CSMA/CD and CSMA/CA.
5. Explain the differences between a piconet and a scatternet.
6. Compare ARP, RARP, and Proxy ARP.
7. What are the main differences between proactive and reactive routing protocols?
8. What is congestion control in computer networks?
9. Define HTTP. What is the default port for HTTP?
10. What is SMTP? State the default port number of SMTP.

Section B

*Answer **all**. Each question carries **6** Marks.* ***(Ceiling: 36 Marks)***

11. Explain twisted pair.
12. State the principle of the Stop-and-Wait, Go-Back-N, and Selective Repeat protocols.
13. Describe the structure of MAC address with an example.
14. Explain the differences between a router and a gateway.
15. Explain the structure of IPV4 and IPV6 address.
16. Differentiate between tunneling and translation.

Turn Over

17. Evaluate the advantages and limitations of Distance Vector Routing for small vs. large networks.
18. Explain how DNS translates domain names to IP addresses.

Section C

Answer ***any one****. Each question carries* ***10*** *Marks.* ***(1x10=10marks)***

19. Explain the various Network Topologies with diagram.
20. Explain Hammimg code with an example.

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