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BACHELOR'S DEGREE (C.B.C.S) EXAMINATION, NOVEMBER 2024

2023 ADMISSIONS REGULAR

B.C.A SEMESTER III - COMPLEMENTARY COURSE

BC3B03B23 - Computer Networks

Time : 3 Hours   **Maximum Marks : 80**

Part A

I. Answer any Ten questions. Each question carries 2 marks   **(10x2=20)**

1. Discuss the components of a communication system.

2. State the need of a computer network.

3. Define flow control.

4. Recall the 3 types of errors.

5. What are the applications of bluetooth technology?

6. Discuss collision-free protocols.

7. Which are the 3 categories of wireless communication system?

8. Explain the different types of IPv6 addresses.

9. Define QoS.

10. What is the purpose of the following network commands (i) ipconfig (ii) netstat.

11. Expand (i)DHCP and (ii)TFTP.

12. Identify the need of firewall in a network.

Part B

II. Answer any Six questions. Each question carries 5 marks   **(6x5=30)**

13. Explain Transport Layer along with the protocols used in TCP/IP reference model.

14. Explain the different types of networks with its advantages and disadvantages.

15. Explain parity check and its limitations.

16. Discuss about Cellular Telephony.

17. Discuss about multiple access protocols.

18. Describe the IPv4 address classes in detail.

19. Summarize the traffic shaping techniques implemented by the Transport Layer to improve the quality of service.

20. Discuss about Email services provided by the Application Layer.

21. Write a short note on VPN.

Part C

III. Answer any Two questions. Each question carries 15 marks   **(2x15=30)**

22. Compare OSI and TCP/IP Model along with the architecture diagram of both the models.

23. Discuss about the Error detection and correction techniques implemented in Data Link Layer.

24. What are the functions of Network Layer? Discuss about IPv4 along with its header format.

25. Write an essay on Email Services and the protocols associated with it.