

**QP CODE**

**H1133**

**Enrollment Number: .....**

**Name: .....**

**B.C.A DEGREE EXAMINATIONS, MARCH 2026**

**Third Semester**

**B.C.A**

**B21CA06DC – Communication and Networking**

**(2024 July admissions)**

**Time: 3 Hours**

**Max Marks: 70**

### **Section A**

**Answer any ten of the following questions in a word or sentence each. Each question carries 1 mark.**

1. Describe data communication.
2. Define digital signal.
3. Mention the feature of network topology.
4. Define a packet.
5. Expand TCP/IP.
6. State the purpose of parity detection.
7. State the function of DNS.
8. Give the use of a router.
9. Define bridge.
10. Discuss the concept of congestion.
11. Define the term confidentiality.
12. Describe the concept of encipherment.
13. Define notarization.
14. State the need of a network administrator.
15. State the purpose of a connector.

**(1X10=10)**

### **Section B**

**Answer any five of the following questions in two or three sentences each. Each question carries 2 marks.**

16. List the key components of a data communication system.
17. What is the use of 'ping' command.
18. Discuss burst error.
19. Briefly explain error correction.

20. Compare connectionless and connection-oriented services.
21. What is traffic padding?
22. Illustrate the main functionality of a switch in data communication.
23. Discuss the need of congestion control mechanisms.
24. State any two types of network security attacks.
25. Briefly explain network configuration.

**(2X5=10)**

### **Section C**

**Answer any five of the following questions in one page each. Each question carries 4 marks.**

26. Discuss the physical structure attributes of a network.
27. Briefly explain the different categories of UTP cable.
28. What is meant by digital signature?
29. Differentiate active attack and passive attack.
30. Write a short note on the connectors used in Fiber Optic cable.
31. Briefly explain FTP and HTTP.
32. Briefly explain the IEEE 802.3 and IEEE 802.11 standards.
33. Differentiate between static IP and dynamic IP.
34. Describe the principles of network security.
35. Explain OSI security architecture.

**(4X5=20)**

### **Section D**

**Answer any two of the following questions in three pages each. Each question carries 15 marks.**

36. Explain in detail the basics concepts of data communication and network models.
37. Describe the OSI model and explain the functions of each layer.
38. List various application layer protocols.
39. Explain various routing protocols.

**(15X2=30)**