Q.P. Code – 68431

Fourth Semester B.C.A. Degree Examination, April/May 2019

(CBCS Scheme)

Computer Science

COMPUTER NETWORKS AND DATA COMMUNICATIONS

Time : 3 Hours] *[Max. Marks : 90*

Instructions to Candidates : ALL Sections are compulsory.

SECTION – A

Answer any **TEN** of the following. **(10 × 1 = 10)**

1. What is data communication?
2. What is network topology?
3. Define layering.
4. Expand OSI.
5. Define protocol.
6. Expand TFTP.
7. What is socket?
8. What is Internet checksum?
9. Define packet switching.
10. Define UDP.
11. What is RFID?
12. What is transmitter?

SECTION – B

Answer any **FIVE** of the following. **(5 × 3 = 15)**

13. Define computer network. Explain the applications of computer network.
14. State any three differences between TCP/IP and OSI model.
15. Explain any two network topologies.

16. Explain HDLC frame format.

17. What is routing? Mention the goals of routing algorithm.

18. Define multiplexing. Mention the different types of multiplexing.

19. Briefly explain different wireless transmission protocols.

SECTION – C

Answer any **SIX** of the following. **(6 × 5 = 30)**

20. What are the different transmission modes in detail?

21. Explain IP address in detail.

22. Explain with a neat diagram of TCP/IP model.

23. Explain the architecture of telnet.

24. Write and explain the frame format of Ethernet 802.11.

25. Define subnetting with an example.

26. Differentiate between leaky bucket and token bucket algorithm.

27. Write short notes on cellular network.

SECTION – D

Answer any **FIVE** of the following. **(5 × 7 = 35)**

28. Explain the different categories of network in detail.

29. Draw a neat diagram and explain in detail about OSI model.

30. Write and explain IPV4 format in detail.

31. The CRC code is having the message polynomial is 1 1 0 1 0 1 1 1 1 1 and the generator polynomial is 1 0 0 1 1. Check if there is any error in the code word.

32. Explain sliding window protocol in detail.

33. Explain the concept of flooding. State its advantages and disadvantages. Mention its applications.

34. Differentiate between wired and wireless network.
