C 30347

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Name.................................

Reg. No.............................

# FIFTH SEMESTER B.C.A. DEGREE EXAMINATION, NOVEMBER 2017

(CUCBCSS—UG)

## BCA 5B 10—COMPUTER NETWORKS

Time : Three Hours

Maximum : 80 Marks

### Part A

*Answer* **all** *questions.*
*Each question carries 1 mark.*

1. TCP stands for ————.

2. The third layer of OSI model is ————.

3. Hamming distance of the codewords 10000 and 01001 is ————.

4. A one-to-all communication between one source and all hosts on a network is classified as a communication.

5. TELNET is an abbreviation for ————.

6. The IP v4 address 192.168.1.2 belongs to ———— class.

7. The Open Shortest Path First (OSPF) protocol is an intradomain routing protocol based on routing.

8. Minimum header size of an IP packet ————.

9. TFTP stands for ————.

10. In ———— cryptography, the same key is used by the sender (for encryption) and the receiver (for decryption).

$(10 \times 1 = 10 \text{ marks})$

### Part B

*Answer* **all** *questions.*
*2 marks each for all questions.*

11. What are the different categories of networks ?

12. Differentiate between ALOHA and Slotted ALOHA.

13. What are the different classifications of CSMA ?

14. Describe the term DHCP.

15. Mention the functions of transport layer.

$(5 \times 2 = 10 \text{ marks})$

Turn over

## Part C

*Answer any **five** questions.*
*Each question carries 4 marks.*

16. Explain different LAN topologies.

17. Explain the various protocols used in email service.

18. Explain Huffman code with example.

19. Differentiate IPV4 and IPV6.

20. Explain packet switching.

21. Write notes on : (a) HTTP ; (b) WWW.

22. Name and explain the layers in TCP/IP Protocol suite.

23. Write notes on DNS.

(5 × 4 = 20 marks)

## Part D

*Answer any **five** questions.*
*Each question carries 8 marks.*

24. What is switching ? Explain about different switching techniques in detail.

25. Specify the functions of Transport layer, Network layer and Data link layer in OSI reference model. Discuss the type of address related with these layers and their functions.

26. Explain the error control schemes employed in the data link layer.

27. Explain in detail sliding window protocol with the help of neat diagram.

28. Briefly explain the channel access methods that have been used on local area bus network.

29. Explain how TCP achieves reliable communication. Explain TCP with its header format.

30. Explain Distance Vector Routing algorithm with example

31. Write notes on: i)POP . ii)FTP iii)NIS iv)NFS

(5 × 8 = 40 marks)