SIXTH SEMESTER B.A./B.Sc. DEGREE EXAMINATION, MARCH 2020

(CUCBCSS—UG)

BCA

BCA 6B 13—COMPUTER NETWORKS

(2017 Admissions)

Time : Three Hours   Maximum : 80 Marks

Part A

Answer all questions.
Each question carries 1 mark.

1. Give any disadvantage of Bus network topology.

2. How many layers are there in OSI model ?

3. What are the different ways of handling error correction ?

4. What is burst error ?

5. What is logical address ?

6. What is a bridge ?

7. What is the main function of transport layer ?

8. Name any *one* Application layer protocol.

9. What do you mean by the term Cipher text ?

10. What is passive attack ?

(10 × 1 = 10 marks)

Part B

Answer all questions.
Each question carries 2 marks.

11. Write a brief note on computer network.

12. Briefly explain Burst error.

13. Write a short note on data link layer.

14. What do you mean by the term Polling ?

15. What is packetizing ?

16. Write a brief note on Network address translation.

17. Differentiate between TCP and UDP.

18. What is substitution cipher ?

(8 × 2 = 16 marks)

Part C

Answer any six questions.
Each question carries 4 marks.

19. Explain packet switching.

20. What is Ethernet and why it is used ?

21. Explain the error detecting code CRC with an example.

22. What are the responsibilities of data link layer ? Explain briefly.

23. What is the range of addresses in the classes of internet addresses ?

24. What is address mapping ? Explain briefly any dynamic address mapping protocol.

25. Differentiate between Connectionless Iterative Server and Connection-Oriented Concurrent Server.

26. Explain simple substitution cipher with example.

27. Briefly explain Message Authentication Code with appropriate figure.

(6 × 4 = 24 marks)

Part D

Answer any three questions.
Each question carries 10 marks.

28. Explain the functionalities of all the layers in TP/IP protocol suite.

29. Explain CSMA/CD medium access technique.

30. What is subnet mask ? How it is represented ?

31. Explain the following : (i) Message transfer agent ; (ii) Message access agent.

32. Describe RSA Algorithm and Estimate the encryption and decryption values for the RSA algorithm parameter.

(3 × 10 = 30 marks)