C 40060 **(Pages : 2)** **Name.....**

Reg. No.....

SIXTH SEMESTER (CUCBCSS—UG) DEGREE EXAMINATION
MARCH 2023

B.C.A.

BCA 6B 13—COMPUTER NETWORKS

(2017—2018 Admissions)

Time : Three Hours Maximum : 80 Marks

Part A

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

1. What do you mean by flow control ?
2. Define Worms.
3. Define mono alphabetic cipher.
4. What is routing algorithm ?
5. What is FTP and how does it work ?
6. Expand NAT.
7. What is Bluetooth and how does it work ?
8. Write the advantage of star topologies.
9. What is the main functionality of the physical layer ?
10. Explain cyclic redundancy check.

(10 ×1 = 10 marks)

Part B

Answer **all** *questions.*
Each question carries 2 *marks.*

11. Write a note on Trojan horse.
12. What is HTTP transport layer ?
13. Explain the different approach of the congestion control algorithm.
14. What is distance vector routing ? Explain.

Turn over

15. Explain the various network devices.
16. Write short notes on Pure ALOHA and slotted ALOHA.
17. What is WiMAX technology and how it works ?
18. Explain various error detection and correction techniques.

(8 × 2 = 16 marks)

Part C

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

19. Explain advantage and disadvantage of bus topologies.
20. Discuss the weaknesses of DES.
21. Explain the functions of physical layer with diagram.
22. Explain subnet mask with example.
23. Explain error detecting techniques in details.
24. What is address mapping ? Explain briefly any dynamic address mapping protocol.
25. How to determine the parity bits.
26. Explain the principles of public key cryptosystems.
27. What are the differences between TCP and UDP services ?

(6 × 4 = 24 marks)

Part D

Answer any **three** *questions.*
Each question carries 10 *marks.*

28. Explain security Goals, Security Service and Security Techniques.
29. Explain the functions TCP/IP in details.
30. Explain in details :
    a) Message Transfer Agent ; and
    b) Message Access Agent.
31. Define RSA algorithm in details.
32. Explain the different classification of switching techniques.

(3 × 10 = 30 marks)