

C 80180

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Name.....

Reg. No.....

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

(CUCBCSS—UG)

Computer Science

BCS 6B 13—COMPUTER NETWORKS

(2017 Admissions)

Time : Three Hours

Maximum : 80 Marks

Part A

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

1. What is intranet ?
2. How many layers are there in TCP/IP reference model ?
3. Expand IEEE.
4. What is LRC ?
5. What NAT stands for ?
6. How many bits are used in IPv6 addressing scheme ?
7. What is SCTP ?
8. What is the use of FTP ?
9. What is hash function ?
10. What do you mean by DES ?

(10 × 1 = 10 marks)

Part B

*Answer all questions.
Each question carries 3 marks.*

11. What are the different categories of networks ? Explain each one.
12. Explain the differences between 3G and 4G mobile networks.
13. What is Router? Explain its function.
14. Explain the functions of DNS.
15. Distinguish between symmetric and asymmetric encryption scheme.

(5 × 3 = 15 marks)

Part C

*Answer any five questions.
Each question carries 5 marks.*

16. Differentiate between packet switching and message switching.
17. Explain about different network topologies in detail.
18. Give an account on wireless LANs.
19. Compare and contrast CSMA/CD and CSMA/CA.
20. What are the different internetworking devices ? Explain any two.
21. What is an IPv4 address Scheme ? Explain its classes.
22. Explain the structure of TCP header with suitable diagram.
23. Write a note on RSA cryptosystem.

(5 × 5 = 25 marks)

Part D

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

24. Compare and contrast OSI reference model and TCP/P reference model.
25. What is CRC ? If the generating polynomial for CRC code is $X^4 + X^3 + 1$ and message word is 11110000, determine check bits and coded word.
26. Describe any two routing algorithms.
27. Explain the functions of transport layer.
28. Explain about RSA digital signature scheme in detail.

(3 × 10 = 30 marks)