C 1136 (Pages : 2)

SIXTH SEMESTER (CUCBCSS—UG) DEGREE EXAMINATION, MARCH 2021

Computer Science

BCS 6B 13—COMPUTER NETWORKS

(2017 Admissions)

Time : Three Hours   Maximum : 80 Marks

Section A

Answer all questions.
Each question carries 1 mark.

1. Define Internet.

2. How many layers are there in OSI Reference model ?

3. What is VRC ?

4. Expand CSMA/CA.

5. Give the name of any *two* routing algorithms.

6. How many bits are used in IPv4 addressing schemes ?

7. What is SNMP ?

8. What is remote login ?

9. What is digital signature ?

10. What is cryptography ?

(10 × 1 = 10 marks)

Section B

Answer at least **four** *questions.*
Each question carries 4 marks.
All questions can be attended.
Overall Ceiling 16.

11. Explain the different network topologies.

12. Differentiate between flow control and error control.

13. What is Gateway ? Explain its function.

Turn over

14. Explain the differences between TCP and UDP.

15. Write a short note on RSA Cryptosystem.

(4 × 4 = 16 marks)

Section C

*Answer at least **four** questions.*
Each question carries 6 marks.
All questions can be attended.
Overall Ceiling 24.

16. Give an account on different categories of networks.

17. Explain the differences between pure ALOHA and slotted ALOHA.

18. Explain the layered architecture of Bluetooth technology.

19. Explain the advantages of IPv6 over IPv4 addressing schemes.

20. Give an account on DNS.

21. **Explain the functionality of transport layer in brief.**

22. Explain confidentiality with Symmetric and Asymmetric key cryptography.

23. Explain the different services provided by network security.

(4 × 6 = 24 marks)

Section D

Answer any two questions.
Each question carries 15 marks.

24. Explain the layered architecture of ISO-OSI Reference model.

25. Explain any *two* error detection and correction techniques with examples.

26. Explain about Distance Vector Routing and Link State Routing algorithm.

27. What is an Email ? Explain the different components of Email.

28. Explain any *two* symmetric block encryption algorithms.

(2 × 15 = 30 marks)