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Question Paper Code : X 67539

B.E./B.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2020

Sixth Semester

Electronics and Communication Engineering

CS 1302 A – COMPUTER NETWORKS

(Regulations 2008)

Time : Three Hours

Maximum : 100 Marks

Answer ALL questions

PART – A

(10×2=20 Marks)

1. The loss in a cable is usually defined in decibels per kilometer. If the signal at the beginning of a cable with -0.3 dB/Km has a power of 2 mW, what is the power of the signal at 5 Km ?
2. What are the factors influencing the data rate ?
3. What is piggyback ?
4. What is meant by hamming distance ?
5. Define subnet mask.
6. Compare between routers and bridges.
7. Mention the features of TCP.
8. What are the frame relay congestion control techniques ?
9. What is the purpose of DNS ?
10. What is the need for security ?

PART – B

(5×16=80 Marks)

11. a) Discuss in detail the ISO-OSI model and explain the functions of various layers.
(OR)
b) What are the requirements of reliable transmission ? Discuss about the linear block codes with illustration.



12. a) Discuss selective repeat ARQ with suitable diagram and compare with its performance Stop and wait and Go Back N ARQ mechanism.

(OR)

b) Describe the architecture of HDLC with relevant sketch.

13. a) Explain the concept of Link state routing.

(OR)

b) Explain routing table creation, updating the table and updating algorithm of distance vector routing.

14. a) i) Explain the issues in connection establishment and connection tear down in transport layer. (6)

ii) What is Congestion control ? Why it is more important in communication networks ? (4)

iii) Explain the packet structure of UDP. (6)

(OR)

b) i) Explain various congestion control techniques adopted in transport layer. (10)

ii) Write and explain the Nagles algorithm. (6)

15. a) Explain the components and architecture of DNS. Also mention the features. (16)

(OR)

b) Write note on the following :

i) SMTP. (4)

ii) FTP. (4)

iii) WWW architecture. (8)
