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Reg. No.....

Name.....

B.TECH. DEGREE EXAMINATION, MAY 2014

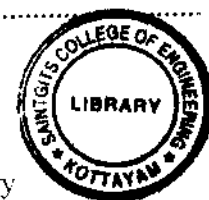
Sixth Semester

Branch : Computer Science and Engineering/Information Technology

COMPUTER NETWORKS (R, T)

(Old Scheme—Prior to 2010 Admissions)

[Supplementary/Mercy Chance]



Time : Three Hours

Maximum : 100 Marks

Part A

*Answer all questions briefly.
Each question carries 4 marks.*

1. What is the function of cable modem ? What are its merits ?
2. Define geosynchronous orbit. Distinguish it from geostationary orbit.
3. Prove that the efficiency of slotted ALOHA is 36 %.
4. With an example, describe how CRC is used for error detection.
5. What are virtual path and virtual circuit ? Explain.
6. Describe how congestion can be avoided in TCP.
7. Bring out the differences between TCP and UDP.
8. Explain the transport layer flow control mechanism.
9. What is a domain name server ? What is its purpose ?
10. Explain the principle used in Scatternet.

(10 × 4 = 40 marks)

Part B

*Answer all questions.
Each full question carries 12 marks.*

11. Explain clearly the components used in the networking of computers. Show how a router can be used as internetworking device between dissimilar subnetworks.

Or

12. (a) What are the advantages and disadvantages of a satellite in a geosynchronous orbit ? Explain.
(6 marks)
- (b) Explain the different types of transmission media giving examples. Compare and contrast their merits.
(6 marks)

Turn over

13. Discuss the challenges in setting up of wireless LAN. Discuss the role of management frames, control frames and data frames in IEEE 802.11 LAN standard.

Or

14. (a) Describe CRC encoding and decoding principles with suitable examples. Also discuss the capability of detecting the errors. (7 marks)
- (b) Explain CSMA/CD protocol. (5 marks)
15. With the help of neat diagrams, explain link state routing and link state multicasting.

Or

16. (a) Explain congestion control algorithm-choke packets. (6 marks)
- (b) Explain congestion avoidance and congestion prevention policies. (6 marks)
17. Discuss the various timers of TCP and explain the process of calculation of retransmission timeout.

Or

18. What is the task of ATM adaptation layer ? What are its sublayers ? Explain the four types of packet streams and typical application.
19. With reference to DNS, explain :
- (i) Structure of DNS. (3 marks)
- (ii) DNS resource, records and queries. (3 × 3 = 9 marks)

Or

20. Explain bluetooth protocols. Describe how communication takes place in bluetooth networks.

[5 × 12 = 60 marks]

