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Question Paper Code : 21371

B.E./B.Tech. DEGREE EXAMINATION, MAY/JUNE 2013.

Sixth Semester

Electronics and Communication Engineering

EC 2352/EC 62/10144 EC 603 — COMPUTER NETWORKS

(Common to Seventh Semester Biomedical Engineering)

(Regulation 2008/2010)

(Also common to PTEC 2352 — Computer Networks for B.E.(Part-Time) Fifth Semester Electronics and Communication Engineering — Regulation 2009)

Time : Three hours Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Differentiate guided and unguided transmission medium.

2. State the role of Digital Subscriber Line.

3. What is the purpose of Network Interface Card?

4. What are Virtual LANs?

5. Why IPV6 is Preferred than IPV4?

6. What is the use of Network Address Translation?

7. What is Three way hand shaking?

8. Differentiate constant bit rate and variable bit rate.

9. State the difference between fully Qualified and Partially qualified domain name.

10. What is a Digital Signature?

PART B — (5 × 16 = 80 marks)

11. (a) (i) Explain the TCP/IP reference model with a neat sketch. (8)

(ii) Compare the performance of TCP/IP and ISO/OSI reference model. (8)

Or

(b) Explain in detail about Network dependent and Network independent layers of OSI Reference model. (16)

12. (a) (i) With the help of a neat diagram explain in detail about the stop and wait protocol in detail. (6)

(ii) Explain the operation of sliding window flow control protocol. (10)

Or

(b) (i) Compare the dore rakes of standard Ethernet, Fast Ethernet, Gigabit Ethernet and Ten-Gigabit Ethernet. (8)

(ii) Discuss about piconet and scatter net with diagrams. (8)

13. (a) Explain the IPV6 addressing schemes in detail. (16)

Or

(b) Explain the ICMP message format and error reporting in detail. (16)

14. (a) Explain the following characteristies. (4×4=16)

(i) Reliability

(ii) Delay

(iii) Jitter

(iv) Bandwidth.

Or

(b) (i) Explain how connection is established and released in TCP with a neat sketch. (8)

(ii) Explain the default timer mechanism followed in TCP. (8)

15. (a) Draw the Architecture of WWW and explain the various blocks in detail. (16)

Or

(b) (i) Explain the private key cryptosystem with an example. (8)

(ii) Explain the RSA algorithm with an example. (8)