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15.5.13

Question Paper Code : 31265

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

Fifth Semester

Electronics and Communication Engineering

080290032 — COMPUTER NETWORKS

(Common to Medical Electronics Engineering)

(Regulation 2008)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Mention any two advantages of a packet switched network.
2. What is a 'resolver' with reference to DNS?
3. Define congestion in a network.
4. What do you understand by a transport service provider and transport service user?
5. List any two functions of a router.
6. Differentiate broadcasting and multicasting.
7. Give the characteristics of a local area network.
8. What is a remote bridge?
9. What is cryptography and what is its role in a computer network?
10. Give an example of substitution cipher.

PART B — (5 × 16 = 80 marks)

11. (a) (i) Explain in detail the role and service of DNS in the world of internet. (8)
- (ii) Explain each portion of the email id before and after the @ symbol. (8)
- Or
- (b) (i) Explain in detail what an email system can do and how they are organized. (8)
- (ii) Explain the working of FTP. (8)

12. (a) (i) List and explain the services offered by the transport layer in a computer network. (8)
- (ii) Which are the two main protocols used in the transport layer? Compare them and explain. (8)

Or

- (b) What are the ways in which a transport protocol resembles a data link layer protocol? Explain the significant difference between the two in detail. (16)
13. (a) What are the various situations that give rise to congestion in the network? List the congestion control mechanism and explain any one. (16)

Or

- (b) (i) Explain the concept of mobile IP. What are the issues to be handled? (8)
- (ii) Show with a figure the IPV6 header and explain the need for each field. (8)
14. (a) (i) Highlight the various services offered by the data link layer. (8)
- (ii) Discuss the issues involved in the error detection and correction in the data link layer Explain any one error detection method. (8)

Or

- (b) (i) With necessary diagrams, explain the sliding window protocol. (8)
- (ii) What is a carrier sense multiple access protocol? What are the versions available? How do they differ? Explain. (8)
15. (a) (i) Discuss the importance of security in a network. What are the issues to be handled in order to provide a secure network? (8)
- (ii) Explain any one method of encryption and decryption. (8)

Or

- (b) Write short notes on:
- (i) Firewalls and intrusion detection system (8)
- (ii) WIFI802-11. (8)