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**B.E./B.Tech. (Full-Time) DEGREE END SEMESTER EXAMINATIONS
(May 2012)
ELECTRICAL AND ELECTRONICS ENGINEERING BRANCH**

**Sixth Semester
EE 9354 - Data Communication and Computer Networks
[Regulation 2008]**

Time: 3 Hrs.

Max. Marks: 100

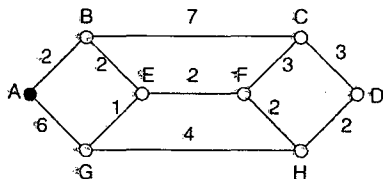
Answer ALL Questions

PART - A [10 x 2 = 20]

1. Expand and Explain: PDU, SDU.
2. List and explain the function of two sub layers of Data Link Layer.
3. Give the summary of the operations of CRC algorithms.
4. What is the need for IPv6?
5. List the primitives for a simple transport service with their meaning.
6. Differentiate between the two major classes of routing algorithms.
7. Give the basic ideas behind the different methods used for audio compression.
8. What do you mean domain name space?
9. Define the terms cryptography and cryptology.
10. What are the different security attacks possible?

PART - B [5 x 16 = 80]

11. i) Explain the TCP Service model. [6]
ii) Give a general overview of the TCP Protocol. [5]
iii) How a TCP Connection is established. [5]
12. a) Explain the OSI reference model with appropriate diagrams. [16]
Or
b) i) Explain and compare circuit switching and packet switching [6]
ii) Explain the working of Hamming Code with suitable examples for transmitting 4 bits of data. Show how one bit error is corrected. [10]
13. a) i) Explain the working of distance vector routing. [10]
ii) Write a note on flooding. [6]
Or
b) i) How the shortest path from A to D is calculated using shortest path routing for the following network [12]



- ii) How IP addresses are divided hierarchically? [4]

P.T.O.

14. a] List and explain the operations involved in JPEG image compression. [16]
- Or**
- b] Explain in detail the different message formats used for e-mail messages. [16]
15. a] i) Explain how secrecy, authentication and both are provided by public key cryptosystems. [12]
- ii) List the steps involved in RSA algorithm. [4]
- Or**
- B] i) Explain the working of playfair cipher with an example. [8]
- ii) Write a note on security services with respect to X.800. [8]

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