FACULTY OF ENGINEERING
B.E. 4/4 (ECE) I Semester (New) (Suppl.) Examination, July 2014
COMPUTER NETWORKS

Time: 3 Hours]   [Max. Marks: 75

Note : Answer **all** questions from Part – **A** and **any five** questions from Part – **B**.

PART – A	(25 Marks)

1.	What is a computer network ? Give an example.	3
2.	Discuss the design issues for layers.	2
3.	What are the advantages and disadvantages of flooding ?	2
4.	What are the uses of MAC sublayer ?	2
5.	List the design goals of network layer.	2
6.	Define congestion. What are the factors that lead to congestion ?	3
7.	What are the applications of UDP ?	3
8.	List down few types and subtypes of MIME format used by E-mail system.	3
9.	Differentiate between virtual circuit and datagram subnet.	2
10.	Differentiate between symmetric key and public key algorithm.	3

PART – B	(5×10=50 Marks)

11. a) Write in detail about OSI reference model. **7**

    b) What is the need for sliding window protocol ? **3**

12. a) Explain about ALOHA multiple access protocol. **6**

    b) Compare circuit switching with packet switching. **4**

13. a) Give the classification of routing algorithm and explain any two of them in detail. **6**

    b) Explain the reason for fragmentation and differentiate between transparent and non transparent fragmentation. **4**

14. a) Draw the header of TCP protocol and explain all fields. **6**

    b) Write any four primitives of transport services. **4**

15. a) Explain different message formats used in E-mail. **5**

    b) What are all the techniques of encryption ? Write public key cryptographic algorithm. **5**

16. a) Discuss any one congestion prevention technique. **5**

    b) List the quality of service parameters, briefly explain methods for achieving good quality of service. **5**

17. Write short notes on **any two** : **10**

    a) Tunneling

    b) Digital signature

    c) IPV4.

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