

E & TC

Sem - VII

**B. Tech. Sem -VII (E & TC Engg.) (2014 COURSE) (CBCS) :  
SUMMER - 2019  
SUBJECT: COMPUTER NETWORKS**

Day: Thursday  
Date: 09/05/2019

S-2019-2861

Time: 02.30 PM TO 05.30 PM  
Max. Marks: 60

**N.B.:**

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks
- 3) Draw neat diagram **WHEREVER** necessary.
- 4) Assume suitable data, if necessary.

**Q.1** What is circuit and packet switching in computer network? What is delay, loss and recovery in circuit and packet switching networks? State difference between circuit and packet switching network. **(10)**

**OR**

With a neat diagram explain each layer of OSI reference model? Compare TCP / IP reference model with OSI reference model. **(10)**

**Q.2** Explain with a neat diagram guided transmission and unguided transmission media. **(10)**

**OR**

What is EIA 232D interface standard, explain different EIA's and their advantages and disadvantages? **(10)**

**Q.3** Explain medium access sub - layer channel allocation problem, multiple access protocols IEEE 802 standards for LANs and WANs. **(10)**

**OR**

Explain HDLC and its modes of operation? What are the principles of reliable data transfer. **(10)**

**Q.4** What is IP protocol and addressing in the Internet Routing Algorithms, Broadcast and Multicast Routing in network layer design issues? **(10)**

**OR**

Explain connection less and connection oriented network routing algorithm - optimality principle, shortest path, flooding. **(10)**

**Q.5** Explain with a neat diagram client - server model? Explain client - server application - HTTP, FTP. **(10)**

**OR**

What is RPC? Explain Real time transport protocols and the internet transport protocols? **(10)**

**Q.6 a)** What is communication security and Authentication protocol? **(10)**

**OR**

**b)** Explain in details public - key algorithms - Firewall, management of public - keys. **(10)**

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