

**B.TECH. SEM -V ( COMPUTER) 2014 COURSE (CBCS) : WINTER -  
2017**

**SUBJECT : COMPUTER NETWORK**

Day : **Tuesday**  
Date : **16/01/2018**

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

**W-2017-2128**

**N.B.:**

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

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**Q.1 a)** Explain in detail ISO-OSI reference model. [05]

**b)** Explain different topologies of LANs. [05]

**OR**

Explain TCP/IP reference model in detail. [10]

**Q.2** Explain different framing methods used for carrying out framing. [10]

**OR**

**a)** Explain different elementary data link protocols. [05]

**b)** Data link protocols always put the CRC in trailer, rather than in a header why? [05]

**Q.3 a)** Compare pure ALOHA and slotted ALOHA. [05]

**b)** What is static and dynamic channel allocation? [05]

**OR**

Explain working of different CSMA protocols. How collision is detected and avoided? [10]

**Q.4 a)** Compare virtual circuit and datagram subnets. [05]

**b)** Explain any two congestion control algorithms. [05]

**OR**

Explain IPv6 in detail. [10]

**Q.5 a)** With neat diagram explain relation between network, transport and application layers. [05]

**b)** Explain TCP Header Format in detail. [05]

**OR**

What do you mean by connection oriented and connectionless protocols. Compare connection oriented and connectionless protocols. [10]

**Q.6 a)** Explain in brief working of DNS. [05]

**b)** Explain FTP model in detail. [05]

**OR**

Explain the following in detail: [10]

**i)** NFS            **ii)** Telnet            **iii)** WiMAX            **iv)** WSN

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