

**B. TECH. SEM -VII (E & TC ENGG.) (2014 COURSE) (CBCS) :  
WINTER - 2017**

**SUBJECT: COMPUTER NETWORKS**

Day: **Friday**  
Date: **12/01/2018**

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

**W-2017-2336**

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**N.B.:**

- 1) All questions are **COMPULSORY**.
  - 2) Figures to the right indicate **FULL** marks.
  - 3) Assume suitable data if necessary.
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**Q.1** State and explain in detail different types of network hardware used in Computer Networks? [10]

**OR**

Explain types of network software and the benefits and features of network software and internet?

**Q.2** Explain with a neat diagram guided transmission and unguided transmission media? [10]

**OR**

Explain and state the differences between circuit, packet and message switching in Computer Networks?

**Q.3** Explain with a neat diagram Logic Link Control (LLC), Medium Access Control (MAC), Cyclic Redundancy Check (CRC), codes in data link layer? [10]

**OR**

State different protocols used in data link layer? Explain elementary data link layer protocol and sliding window protocol?

**Q.4** With a neat diagram explain Virtual and Datagram networks, explain it's differences? [10]

**OR**

What is Internet Protocol (IP) and addressing in the internet routing algorithms, broadcast and multicast routing in network layer design issues?

**Q.5** With a neat diagram explain Internet Transport Protocols? State and explain different Internet Transport Protocols? [10]

**OR**

Explain the functionality of application layer and it's paradigm?

**Q.6** Explain Cryptography algorithms and trust models in detail? [10]

**OR**

What is communication security and authentication protocol?