

**B.TECH. SEM -V ( COMPUTER) 2014 COURSE (CBCS) :**  
**SUMMER - 2018**  
**SUBJECT : COMPUTER NETWORK**

Day : **Wednesday**  
Date : **23/05/2018**

**S-2018-2336**

Time : **10.00 AM TO 01.00 PM**  
Max. Marks : 60

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**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** Explain different hardware devices used in networking. [10]

**OR**

- a) Explain different types of networks. [05]
- b) Explain working of physical layer in detail. [05]

**Q.2** a) What are different framing methods? [05]

b) What is bit stuffing? Explain function of timer. [05]

**OR**

Explain any two data link protocols in detail. [10]

**Q.3** a) Draw and explain IEEE 802.5 Frame Format in Detail? [05]

b) Explain RFID in detail. [05]

**OR**

A large population of ALOHA users manages to generate 50 requests/sec, including both originals and retransmissions. Time is slotted in units of 40 msec. [10]

i) What is the chance of success on the first attempt?

ii) What is the probability of exactly k collisions and then a success?

iii) What is the expected number of transmission attempts needed?

**Q.4** What are the differences between flow control and congestion control? [10]

**OR**

What is the difference between end to end delay and packet jitter? What are the causes of packet jitter? [10]

**Q.5** a) What are the duties of transport layer? [05]

b) Explain different QoS parameters of transport layer. [05]

**OR**

Explain different elements of transport protocols in detail. [10]

**Q.6** Explain DNS and mail server in detail. [10]

**OR**

a) Explain QoS with respect to WSN in detail. [05]

b) Explain WiMAX with neat diagram. [05]

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