

Day : Friday  
Date : 23/11/2018

**W-2018-2554**

Time: 02.30 PM TO 05.30 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 diagram **WHEREVER** necessary.
  - 4) Assume suitable data, if necessary.
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**Q. 1 a)** With neat diagram explain the TCP/IP protocol suite mentioning the different layers and their functions in TCP/IP. Why TCP/IP is called defacto standards? **(10)**

**OR**

Write short notes on : **(10)**

- i) Network software issues
- ii) Hybrid reference model

**Q. 2** Mention different unguided media and explain any two in detail: **(10)**

**OR**

Explain in detail the following devices: **(10)**

- i) Switches
- ii) Routers
- iii) Bridges
- iv) NIC

**Q. 3** What do you mean by hidden and exposed station problems in IEEE 802.11 protocol? Explain in detail. **(10)**

**OR**

Describe HDLC frame format with neat diagram. **(10)**

**Q. 4 a)** Briefly describe the RSVP approach to controlling QoS. **(05)**

**b)** Explain Leaky Bucket algorithm. **(05)**

**OR**

What does routing mean and how does it take place? Describe the different factors affecting routing algorithms. Explain distance vector routing. **(10)**

**Q. 5** Draw IPV6 packet format and explain. **(10)**

**OR**

Discuss in detail about DNS and its frame format. **(10)**

**Q. 6 a)** What are the different benefits of security? **(05)**

**b)** Explain the key generation process in Data Encryption Standard (DES) algorithm. **(05)**

**OR**

Explain the AES symmetric key algorithm with example. **(10)**