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## P.E.S. College of Engineering, Mandya - 571 401

(An Autonomous Institution affiliated to VTU, Belagavi)

Sixth Semester, B.E. - Computer Science and Engineering

Semester End Examination; May / June - 2018

### Computer Networks

Time: 3 hrs

Max. Marks: 100

*Note: Answer FIVE full questions, selecting ONE full question from each unit.*

#### UNIT - I

- 1 a. With a neat diagram, explain the datagram approach of a connectionless service. 10
- b. Illustrate data transfer phase of a virtual circuit with an example. 10
- 2 a. With a neat sketch, explain the working operation of NAT and DHCP. 10
- b. Write a note on mobile IP addressing. 10

#### UNIT - II

- 3 a. Illustrate spanning trees in path vector routing algorithm with an example. 10
- b. What is protocol Independent multicast? Explain. 10
- 4 a. With a neat diagram, explain IPV6 datagram. 10
- b. Write a note on Multicast Link State (MOSPF). 10

#### UNIT - III

- 5 a. Explain transport layer protocol encapsulation and de-capsulation. 10
- b. Explain UDP with packet format. 10
- 6 a. Explain flow control at the transport layer with a neat diagram. 10
- b. Explain TCP segment format with a neat diagram. 10

#### UNIT - IV

- 7 a. Explain flow diagram for iterative UDP communication. 10
- b. Write a note on HTTP protocol message format. 10
- 8 a. Write a note on SNMP PDU. 10
- b. With a neat diagram, explain the architecture of E-mail. 10

#### UNIT - V

- 9 a. What are the goals of security? Explain the taxonomy of attacks with relation to security goals. 10
- b. Explain token bucket. 10
- 10 a. Illustrate Transposition cipher with an example. 10
- b. Write a note on Encapsulating Security Payload (ESP). 10

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