

[5353]-191

T.E. (Information Technology)
COMPUTER NETWORK TECHNOLOGY
(2012 Pattern) (End Semester)

Time : 2½Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) *Answer Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8, Q.9 or Q.10.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Figures to the right side indicate full marks.*
- 4) *Assume suitable data if necessary'*

- Q1)** a) What is count-to-infinity problem? Explain with suitable example. [6]
b) Why three timers are required in TCP management? Explain the use of each timer. [4]

OR

- Q2)** a) What are the three phases in mail transfer? [6]
b) Write short notes on ICMP [4]

- Q3)** a) Explain at least 8 important commands used in FTP. [6]
b) Explain the role of SMTP and POP protocols in transfer of e-mail message [4]

OR

- Q4)** a) A company is granted a site address 201.70.64.0. The company needs six subnets Design the subnets. [6]
b) Compare FTP and TFTP. [4]

- Q5)** a) Describe the IEEE 802.11 specifications w.r.t Physical & Mac layer CSMA/CA. [8]
b) Write the Specifications of Bluetooth , protocol stack & Profiles of IEEE 802.15 [8]

P.T.O

OR

- Q6)** a) State differences between IEEE 802.11 and 802.16 w.r.t. Physical Layer, Data Link Layer functionalities & protocols. [8]
b) Explain the architecture of 802.11. [8]

- Q7)** a) What are challenges for mobile ad hoc networks? [8]
b) Explain WSN applications with example. [8]

OR

- Q8)** a) Explain operating environment constraints in WSN. [8]
b) Explain STEM protocol with diagram. [8]

- Q9)** a) Describe Routing protocols AODV, DSDV [10]
b) What is PEGASIS. Explain with example. [8]

OR

Q10) Write short note on:-

- a) Wi-Fi Offloads
100G Ethernet and its variants
Internet of Things (IoT) and Web of Things [10]
b) Describe Routing using DSR. [8]

