

Total No. of Questions : 10]

SEAT No :

**P1763**

**[5058]-403**

[Total No. of Pages : 2

**T.E.(Information Technology)**

**COMPUTER NETWORK TECHNOLOGY**

**(2012 Pattern) (Semester -I) (314441) (End Semester)**

*Time : 2.½ Hours]*

*[Max. Marks : 70*

*Instructions to the candidates:*

- 1) *Neat diagrams must be drawn wherever necessary.*
- 2) *Figures to the right indicate full marks.*
- 3) *Assume suitable data if necessary.*

**Q1) a)** Explain distance vector routing with count to infinity problem. **[6]**

b) Explain multiplexing technique at transport layer. **[4]**

OR

**Q2) a)** Why three timers are required in TCP timer management? **[6]**

b) Define subnetting, supernetting and classless addressing. **[4]**

**Q3) a)** What is domain name system? explain how a resolver looks up a remote name with suitable example. **[6]**

b) What is MIME? Discuss its role in SMTP. **[4]**

OR

**Q4) a)** State and explain six commands in FTP. **[6]**

b) Explain static and Dynamic Web pages. **[4]**

**Q5) a)** Compare bluetooth and 802.11. What are the limitations of Bluetooth. **[8]**

b) what are Hidden Station and exposed station problems in WLAN? **[8]**

OR

**Q6) a)** Explain BSS and ESS in 802.11. **[8]**

b) Describe Bluetooth protocol stack. **[8]**

**P.T.O.**

- Q7)** a) What are the operating environmental constraints in WSN? [8]  
b) List different routing protocols used by WSN. Explain LEACH protocol. [8]

OR

- Q8)** a) Describe each component in sensor node architecture. [8]  
b) List any six applications of sensor networks and describe in detail. [8]

**Q9)** Write short note on (Any three) [18]

- a) SPIN
- b) 100G
- c) IOT
- d) S-MAC

OR

**Q10)** Write short note on (Any three) [18]

- a) PEGASIS
- b) BYOD
- c) SDN
- d) AODV

