

Total No. of Questions : 10]

SEAT No. :

P2468

[Total No. of Pages : 2

[5253]-191

T.E. (I.T.)

COMPUTER NETWORK TECHNOLOGY

(2012 Pattern) (End Semester)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) Attempt Q1 or Q2, Q3 or Q4, Q5 or Q6, Q7 or Q8, Q9 or Q10.
- 2) Neat diagrams must be drawn wherever necessary.
- 3) Figures to the right indicate full marks.
- 4) Your answer will be valued as a whole.
- 5) Assume suitable data jf necessary.

**Q1)** a) Explain Distance Vector routing algorithm with suitable example. [6]

b) Explain request and response messages in HTTP. [4]

OR

**Q2)** a) Draw and explain TCP header format. [6]

b) Explain IP fragmentation. [4]

**Q3)** a) Draw and explain TCP state transition diagram. [6]

b) What is supernetting? Explain reason to perform subnetting. [4]

OR

**Q4)** a) How web pages are made dynamic using CGI. [6]

b) Explain Border Gateway protocol with message format. [4]

P.T.O.

- Q5)** a) Explain CSMA/CA in detail. [8]  
b) Differentiate between IEEE 802.11 and IEEE 802.16 [8]

OR

- Q6)** a) Explain MAC layer mechanism IEEE 802.11, [8]  
b) Explain architecture of WLAN with diagram. [8]

- Q7)** a) Explain Piconet and Scatternet architecture in Bluetooth. [8]  
b) Length of SIFS period must be shorter than DIFS period in IEEE 802.11 specification why? [8]

OR

- Q8)** a) Draw and explain sensor node architecture. [8]  
b) Explain working of STEM and its types. [8]

- Q9)** a) Explain any two routing protocols in MANET. [10]  
b) Explain operating environment constraint in WSN. [8]

OR

- Q10)** a) List various techniques for minimizing wastage of energy in S-MAC. Explain any three in detail. [10]  
b) Write short note on (Any Two) : [8]  
i) Wi-Fi offloads.  
ii) Software defined Network.  
iii) Web of things.

