

Total No. of Questions : 10]

SEAT No. :

**P2908**

**[4958]-1103**

[Total No. of Pages : 2

**T.E. (Information Technology)**  
**COMPUTER NETWORK TECHNOLOGY**  
**(2012 Pattern) (Semester - I) (End Sem) (314441)**

*Time : 2½ Hours]*

*[Max. Marks : 70*

**Instructions:**

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

- Q1)** a) State reasons for having layered architecture and its disadvantages. [6]  
b) Compare connection oriented and connection less services. [4]

OR

- Q2)** a) Explain choke packets and hop by hop choke packets. [6]  
b) Compare link state routing and distance vector routing. [4]

- Q3)** a) Draw and explain IPV4 header format. [6]  
b) State classes in IP addressing with range of addresses and no of devices that can be connected. [4]

OR

- Q4)** a) State and explain. Name Address resolution techniques in DNS. [6]  
b) Explain persistent and non persistent HTTP. [4]

- Q5)** a) Explain Bluetooth architecture. [8]  
b) Explain Frame format of IEEE 802.16 [8]

OR

*P.T.O.*

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

- Q7)** a) Explain difference between pure and slotted ALOHA. [8]  
b) Discuss naming and addressing in wireless sensor network. [8]

OR

- Q8)** a) What are various design issues and challenges of WSN. [8]  
b) Explain following terms  
i) Data aggregation  
ii) Data diffusion  
iii) Data dissemination [8]

- Q9)** a) Explain content based and geographic routing. [10]  
b) Explain STEM for energy conservation in MAC layer. [8]

OR

- Q10)**a) Write short note on (any two) [10]  
i) LEACH  
ii) LOT  
iii) DSR  
b) Explain SPIN routing protocol in WSN. [8]

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