Total No. of Questions : 10] **SEAT No. :**

P2074 **[Total No. of Pages : 2**

[5059] - 680

B.E. (Information Technology)

ADVANCED COMPUTER NETWORKS

(2012 Pattern) (Semester - II) (Elective - III)

Time : 2½ 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 jf necessary.***

Q1) a) Describe architecture of WiMAX. **[6]**

b) What are different network elements? **[4]**

OR

Q2) a) What are ATM traffic descriptor? Explain. **[6]**

b) What is Network address translation? **[4]**

Q3) a) Draw header structure of ATM cell at U-N interface. **[6]**

b) What is multiprotocol label switching? **[4]**

OR

Q4) a) Describe in detail VoIP. **[6]**

b) What is multirate circuit switching? **[4]**

Q5) a) What do you mean by lossless compression? State different lossless compression techniques. Explain any one detail. **[10]**

b) Describe various components of TCP congestion control? **[8]**

OR

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Q6) a) What are different strategies to avoid congestion? Explain any one in detail. **[10]**

b) Define QoS? How RSVP supports to improve the overall QoS of network? **[8]**

Q7) a) Explain characteristics of Mobile IP. **[8]**

b) What is MPLS? Explain the operations of MPLS in detail. **[8]**

OR

Q8) a) What is GMPLS? Where it is used? Justify your answer. **[8]**

b) Discuss the challenges of traffic engineering in IP/MPLS network. **[8]**

Q9) a) Explain basic architectural stack of IEEE 802.16. **[8]**

b) Explain Cluster-Based wireless networks. **[8]**

OR

Q10)a) Describe high rate and low rate WPAN. **[8]**

b) Explain in detail MAC implementation of IEEE 802.16. **[8]**