Total No. of Questions : 12]

SEAT No. :

P2825

[Total No. of Pages : 2

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B.E. (Information Technology)

ADVANCED COMPUTER NETWORK

(2008 Pattern) (Semester - II) (Elective - III) (414450 D)

Time : 3 Hours] *[Max. Marks :100*

Instructions to the candidates:

1) ***Answer THREE questions from each section.***
2) ***Answers to the two sections should be written in separate answer books.***
3) ***Neat Diagrams must be drawn wherever necessary.***
4) ***Figures to the right indicate full marks.***
5) ***Assume suitable data, if necessary.***
6) ***Use of electronic pocket calculator is allowed.***

SECTION-I

Q1) a) Write brief description of ISO/OSI network model. **[10]**

b) What are principles of network design? **[8]**

OR

Q2) a) Enlist principles and services of Networking with Layered architecture? **[12]**

b) What is Internet and ATM? **[6]**

Q3) a) Explain the structure of ATM header. **[8]**

b) List mobility management issues in wireless networks. **[8]**

OR

Q4) a) Explain an architecture of Wireless communication. **[8]**

b) Explain WDM system with diagram. **[8]**

Q5) a) List QoS parameters. **[6]**

b) What is Congestion control and flow control mechanism of datagram network? Explain this w.r.t Open Loop and Closed Loop. **[10]**

OR

P.T.O.

Q6) a) How congestion is controlled in ATM network? **[8]**

Explain it w.r.t.

i) Internal congestion control

ii) Global congestion control

b) Explain M/M/l queue and M/M/2 queue marcov Chain Models. **[8]**

SECTION-II

Q7) a) Explain in detail BGP and RIP. **[10]**

b) Explain traffic engineering in MPLS. **[8]**

OR

Q8) a) Draw various formats of BGP messages. **[8]**

b) Describe the significance of tunneling in VPNs. **[10]**

Q9) a) Explain characteristics of Mobile IP. **[6]**

b) Describe various features of IPv6. **[10]**

OR

Q10)a) Describe RTP and RSVP. **[8]**

b) What are different APIs for IPv6? **[8]**

Q11)a) Explain architecture of ad-hoc networks. **[6]**

b) Define ad-hoc network? List limitations and applications of it. **[10]**

OR

Q12)a) State the process of implementation of firewall in the network? **[8]**

b) Define overlay networks? State it's importance? **[8]**