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Third Semester M.Tech. Degree Examination, Dec.2013/Jan.2014
Network Management

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions.

1.
 - a. List network management functional groupings. Explain network operations. (08 Marks)
 - b. What are TCP/IP – based networks? Explain internet configuration. (08 Marks)
 - c. Differentiate direct communication between end systems and communication between end systems via an intermediate system. (04 Marks)
2.
 - a. What does organization model describes? Explain two-tier, three-tier and network management organization model with MOM. (08 Marks)
 - b. Using suitable examples, bring out the significance of Management Database (MDB) and Management Information Base (MIB). (04 Marks)
 - c. List four classes of tags and explain any two with suitable illustrations. Complete the TLV encoding structure for the hexadecimal data 'OCIB'FA. Explain each byte depicts what structure. (08 Marks)
3.
 - a. Write a note on SNMP document evolution. State some standards and RFC's. (04 Marks)
 - b. Mention different MIB-2 groups with brief description of each. (11 Marks)
 - c. Write object instances of ipAddr Table and objected for specific instances. (Assume the data). (05 Marks)
4.
 - a. Administrative model of SNMP communication model defines the data access policy. In this regard, explain SNMP community, SNMP community profile, SNMP access policy and SNMP proxy access policy. (08 Marks)
 - b. Explain Get-Next-Request operation for a MIB. [Assume data] (03 Marks)
 - c. List any nine significant entities of SNMP group. Explain each briefly. (09 Marks)
5.
 - a. Under RMON1 MIB groups, such as statistics, history, host, matrix, filter, packet, capture and event, provide their functionality and tables used. (07 Marks)
 - b. Write a note on RMON-Token-Ring Extension group. (05 Marks)
 - c. Mention about RMON2 MIB groups with its functionality and tables. Include the explanation for RMON2 conformance specifications. (08 Marks)
6.
 - a. With a neat schematic diagram, provide the protocol layer architecture in a cable access network system. Explain in detail the cable modem management MIBs. (10 Marks)
 - b. Write ADSL Forum system reference model for management. Explain in detail ADSL configuration management parameters. (10 Marks)
7.
 - a. Bring out the significance of Fault management using Fault location and isolation techniques. (04 Marks)
 - b. What are performance metrics and performance statistics? (04 Marks)
 - c. With an RBR-based correlation example scenario, discuss basic rule-based reasoning paradigm. (12 Marks)
8.
 - a. Explain causality graph. Provide an instance of causality graph with its codebook and correlation matrix. Describe how codebook correlation model of event correlation technique works. (10 Marks)
 - b. Write note on policies and procedures, firewalls, message transfer security in security management. Explain PEM process and PGP process with block diagrams. (10 Marks)