

PLEASE WRITE YOUR ROLL NO. AT THE SPACE PROVIDED ON EACH PAGE IMMEDIATELY AFTER RECEIVING THE QUESTION PAPER.

NOTE: There are 9 Questions in all.

- Question 1 is compulsory and carries 20 marks. Answer to Q.1 must be written in the space provided for it in the answer book supplied and nowhere else.
- The answer sheet for the Q.1 will be collected by the invigilator after 45 minutes of the commencement of the examination.
- Out of the remaining EIGHT Questions answer any FIVE Questions. Each question carries 16 marks.
- Any required data not explicitly given, may be suitably assumed and stated.

Q.1 Choose the correct or the best alternative in the following: (2×10)

a. A basic telephone system is an example of

- (A) packet switching (B) cell switching
(C) circuit switching (D) message switching

b. What layer in the TCP/IP stack is equivalent to the Transport layer of the OSI model?

- (A) Application (B) Host-to-Host
(C) Internet (D) Network Access

c. ASN.1 stands for

- (A) Abstract Syntax Notation 1
(B) Absolute Semantic Notation 1
(C) Abstract Semantic Notation 1
(D) None of these

d. SNMP defines the _____ to be sent from a manager to an agent and vice versa.

- (A) format of the packets (B) encoding of the packets
(C) number of packets (D) none of these

e. A stub network is

- (A) A network with more than one exit point
(B) A network with more than one exit and entry point
(C) A network with only one entry and no exit point
(D) A network that has only one entry and exit point

f. SNMP uses two other protocols:

- (A) MIB and SMTP (B) SMI and MIB
(C) FTP and SMI (D) None of these

g. The length of SNMPv1 supports

- (A) 16 bit IP addresses (B) 32 bit IP addresses
(C) 8 bit IP addresses (D) None of these

h. Which of the following deals with creation of network database

- (A) Configuration Management (B) Fault Management
(C) Performance Management (D) Accounting Management

i. Which of the following is not an Event Correlation technique

- (A) Rule-based reasoning (B) Case-based reasoning
(C) Event-based reasoning (D) Model-based reasoning

j. WBEM stands for

- (A) Web Based Enterprise Management
(B) Web Based Embedded Management
(C) Web Based Event Management
(D) None of these

**Answer any FIVE Questions out of EIGHT Questions.
Each question carries 16 marks.**

- Q.2** a. What do you mean by Network Management? Explain. (2+6)
b. Explain functions of various layers of OSI protocol. Illustrate with the help of a diagram. (5+3)
- Q.3** a. Explain salient features of various Network Management Standards. (8)
b. Explain the Information model and Functional model of Network Management. (4+4)
- Q.4** a. What are the key components of SNMP managed network? Explain. (3+5)
b. Explain Management Information Base of SNMPv1. (8)
- Q.5** a. Compare RMON1 and RMON2. Illustrate your answer by listing various goals and benefits of Remote Monitoring. (6+2)
b. Explain SNMP Community Profile and SNMP access policy. (4+4)

- Q.6** a. Explain in detail the concept of Network Management tools. (8)
- b. Explain briefly the following: (4+4)
- (i) Commercial network management system
- (ii) Enterprise management solutions
- Q.7** a. Explain the significance of Event Correlation Techniques in network management. List various Event Correlation Techniques. Explain any two. (3+3+2)
- b. What do you understand by Configuration Management? Explain. (3+5)
- Q.8** a. What do you understand by Accounting Management? Explain. (3+5)
- b. Explain Policy-Based Management. (8)
- Q.9** a. Explain the web-based enterprise management. Illustrate with the help of functional diagram. (5+3)
- b. Explain the concept of Java Management Extensions. Illustrate your answer by explaining the architecture of Java Management Extensions. (5+3)