Name : ....

Roll No. : ....

Invigilator's Signature : ....

CS/B.TECH(ECE)/SEM-7/EC-704F/2012-13

2012

TELECOMMUNICATION NETWORK MANAGEMENT

Time Allotted : 3 Hours   *Full Marks :* 70

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

GROUP – A

(Multiple Choice Type Questions)

1. Choose the correct alternatives for any *ten* of the following :

$10 \times 1 = 10$

i)   A header in CGI script can specify

   a)   format of the document

   b)   new location of the document

   c)   (a) & (b) both

   d)   start of the document.

ii) Which Layer is not present in TCP / IP model ?

   a)   Application Layer   b)   Internet Layer

   c)   Transport Layer   d)   Presentation Layer.

iii) Let most segment of a name in DNS represents

   a)   Individual network   b)   Individual computer

   c)   Domain name   d)   Network type.

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iv) Address 192.5.48.3 belongs to

    a) class A   b) class B

    c) class C   d) class D.

v) Unlike Ipv4, Ipv6 do not include the .... field in the base header.

    a) Next Header field

    b) Field for Fragmentation information

    c) Flow Label

    d) Kind field.

vi) The term 'byte stuffing' refers to

    a) data stuffing used with character oriented hardware

    b) data stuffing used with bit oriented hardware

    c) data stuffing used with both (a) & (b)

    d) data stuffing used with byte oriented hardware.

vii) FDDI (Fiber Distributed Data Interconnect) is an example of

    a) token ring   b) token bus

    c) star topology   d) multipoint network.

viii) Hardware that calculates CRS (Cyclic Redundancy Check) uses

    a) Shift register   b) XOR unit

    c) Both (a) & (b)   d) Instruct ion register.

ix) In TCP protocol header "checksum" is of

    a) 8 bits   b) 16 bits

    c) 32 bits   d) 64 bits.

x) In IP addressing scheme, class used for multicasting is

    a) Class A   b) Class B

    c) Class C   d) Class D.

xi) CIDR stands for

    a) Classified Internet Domain Routing

    b) Classless Inter Domain Routing

    c) Classess Internet Domain Routing

    d) Classified Inter Domain Routing.

xii) Error detecting method that can detect more errors without increasing additional information in each packet is

    a) checksum

    b) even parity mechanism

    c) CRC

    d) odd parity mechanism.

GROUP – B

(Short Answer Type Questions)

Answer any *three* of the following.   3 × 5 = 15

2. Explain SNMP operations that comprise get and trap messages from Agent to Manager.

OR

Differentiate between message switching, packet switching and circuit switching.

3. Write in detail about the Web Interface to SNMP Management.

4. How adaptive transmission helps TCP to maximize throughput on each connection ?

5. Describe the Telecommunication Management Network (TMN) Functional MODEL.

6. Discuss the details of the PDU data structures and protocol operation of SNMPv2.

OR

Differentiate between Transport and Session layers of OSI model.

GROUP – C

(Long Answer Type Questions)

Answer any *three* of the following.   3 × 15 = 45

7. a) Explain about the SNMPv1 Organization model with suitable examples.

   b) Describe the SNMPv1 information model with Structure of Information (SMI).

8. a) What is Remote Network Monitoring ? Explain SMI and MIB with suitable examples.

   b) Explain ATM Remote monitoring with suitable examples.

9. a) What are significant enhancements in the SNMPv2 architecture ? Explain with neat diagram.

   b) What are the Major changes in SNMPv2 comparatively with SNMPv1 ? Explain.

10. What is Telecommunication Management Network ? Write briefly about the Operation Systems, TMN Conceptual Model and Standards.

11. Write briefly about the following :   3× 5

    a) Embedded Web-Based Management

    b) The RMON2 Management Information Base

    c) Web-Based Enterprise Management.