Question 1: Multiple Choice Questions (please choose ONLY ONE answer)

1. The model that specifies the relationship between network element, agent, and manager is
    a) Information Model
    b) Organization Model
    c) Communication Model
    d) Centralized Model

2. For SNMP, defines the general rules for naming objects, defining object types, and showing how to encode objects and values.
    a) MIB
    b) BER
    c) SMI
    d) none of the above

3. The layer of the OSI model can use the trailer of the frame for error detection.
    a) physical
    b) data link
    c) transport
    d) presentation

4. A pairing of an SNMP community with an SNMP community profile is defined as SNMP _____ policy.
    a) peer-to-peer
    b) match
    c) access
    d) none of these

5. The three separate functions in the Dispatcher subsystem are accomplished using
    a) Transport Mapper
    b) Message Dispatcher
    c) PDU Dispatcher
    d) All the above

6. Traffic monitoring tools include
    a) host and dig tools
    b) netstat and arp.
    c) traceroute
    d) None of the above

7. Which tool is best suitable for measuring connectivity?
    a) ifconfig.
    b) wireshark
    c) ping
    d) none of the above

8. The SNMP Engine comprises

    a) Dispatcher
    b) Security Subsystem
    c) Access control subsystem.

d) All the above

9. The OBJECT-TYPE macro is used to define

   a) manager
   b) managed object
   c) service
   d) None of the above

10. In MPLS, routing of a data packet is done based on an MPLS header which specifies the FEC (forward equivalent classes). This FEC is assigned at

    a) the ingress router
    b) the egress router
    c) at any IP router
    d) none of the above

11. LANE corresponds to

    a) LAN Ethernet to designate a local area network using Ethernet technology.
    b) LAN Emulation to allow interfacing between ATM network and traditional LAN
    c) LAN Emulation to allow interfacing between TCP/IP network and traditional LAN
    d) None of the above.

12. What are the three types of wireless technologies?

    a) PAN, WLAN, and access networks
    b) PAN, LAN, WiFi
    c) WLAN, PAN, mobile
    d) WiFi, mobile, and satellite

13. Among the characteristics of outdoor propagation

    a) Attenuation.
    b) Dispersion.
    c) Fading.
    d) All of the above.

14. In Telecommunication management Network (TMN) system, the role of the manager is to issue commands and requests to the agent. These commands and requests are known as

    a) notifications
    b) feedbacks
    c) operations
    d) Acknowledgements

15. Among the characteristics of wired media that adversely affect broadband propagation are:
    a) Attenuation.

b) Phase dispersion
c) Time dispersion.
d) All of the above

16. In TMN terminology, the switching systems, circuits, terminals, etc., which comprise a telecommunications network, are known as

a) Operations support systems (OSS)
b) Network Elements (NEs)
c) Mediation devices (MDs)
d) Q Adapter (QA)

17. In small-scale fading, there is

a) Slow rate of change
b) Rapid rate of change
c) Fixed rate of change
d) None of the above

18. UPnP stands for

a) Uniform Plug and Play
b) Universal Plug and Play
c) Unidirectional Plug and Play
d) Unintended Plug and Play

19. Enterprise WLAN consist of

a) AP
b) STAs
c) AP as a bridge
d) All of the above

20. Which of the following will NOT be a component of a home network?
a) ATU-R
b) Cable Modem or wireless modem
c) ATM switch
d) Residential gateway

Question 2: True/False [Write TRUE or FALSE in a provided place]

	Connectionless mode network service (CLNS) communicates with a SNMPv2 manager over the UDP transport layer.	1
	Network management is the process to operating, monitoring, and controlling the network to ensure it works as intended and provides value to its users.	2
	SNMP network management architecture specifies five transport function protocols.	3
	The MRTG is a tool that monitors traffic load on network links.	4

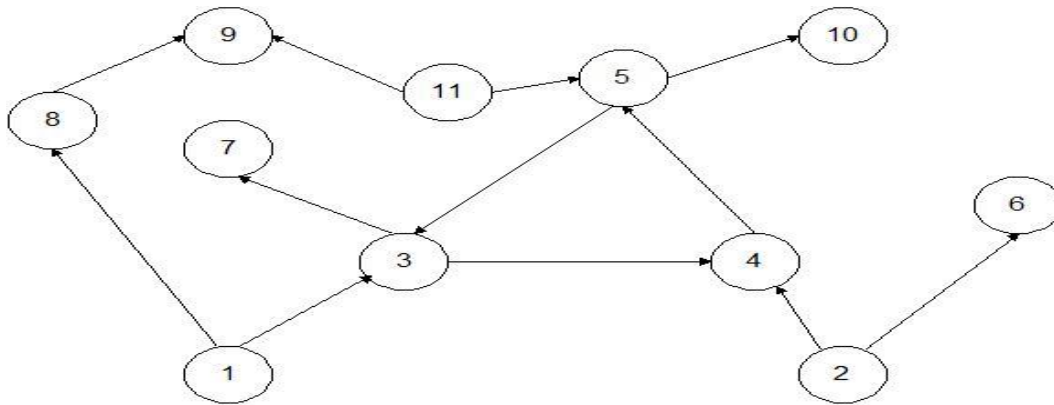|		
	The SNMP Engine ID is made up of OCTET String.	5
	Bing dumps traffic on a network.	6
	SDH is a standard technology for synchronous data transmission on optical media. It is the international equivalent of SONET.	7
	The fading phenomenon in wireless has only a spatial dependency.	8
	The fourth layer of TMN deals with network or system management.	9
	Bluetooth protocol architecture uses frequency division multiplexing.	10

Question 3: Fill in the Blanks

1. ………………………….. is one among the route monitoring tool

2. RMON1 specifically performs numerous functions in ………………. layer.

3. ……………….. is Traffic Monitoring Tool used for measuring round trip packet loss.

4. ………………… is concerned only with object type.

5. The organization model describes the components of network management and their ………………………….

6. The access characteristic of the Internet is a function of the ………………… function of the OSI functional model.

7. For ……………………… protocol, all packets take the same path and arrive in the same sequence in virtual circuit.

8. A kind of propagation transmit in all directions uniformly is called …………………

9. The ……………………… is the network element layer comprising network elements such as switches, routers, bridges and transmission facilities.

10. OSGi is a platform for …………………… gateway

Hints:

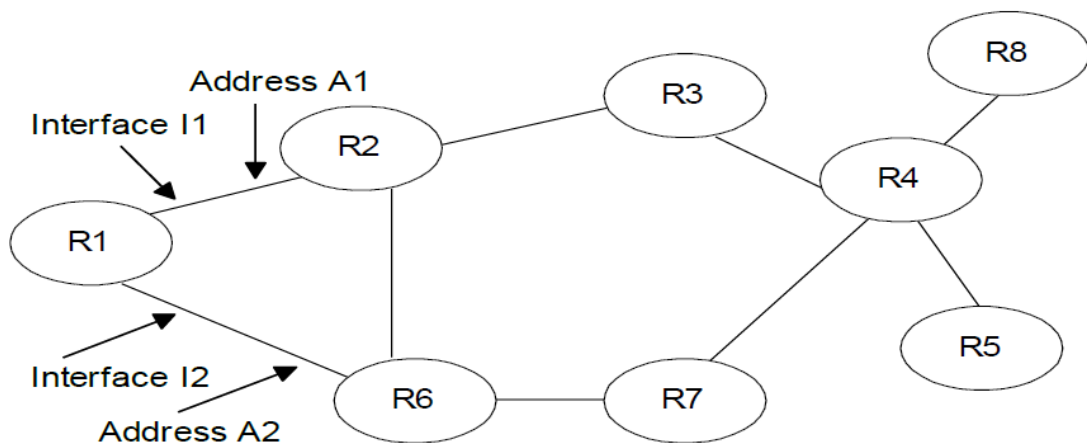| Trace Route	Physical	Isotropic Propagation.	residential	SNMP
privacy	RequestID	gateway	ATM	Ping
lowest layer	Data Link	OFDM	SNMPv2	security
relationships	RMON	SMI	RMON2	ATM

Question 4: From the figure below calculate the P-S Causality Graph and Correlation Graph and Matrix

Question 6: What is fading?

Question 7:

a) **From the following figure draw the routing table for R1 without Tunnel.**

b) From the following figure draw the routing table for R1 with Tunnel.