In the Name of Allāh, the Most Gracious, the Most Merciful

Paper Pattern

MCQS 40 each 1 mark
Short 4 each 2 marks
Short 4 each 3 marks
long 4 each 5 marks

Marks: 1 (Budgeted Time 1 Min)

_____ protocols of TCP/IP layering model specify how to ensure reliable transfer.

Answer (Please select your correct option)

○ Physical Layer

○ Network Interface Layer

○ Internet Layer

○ Transport Layer ✓

Marks: 1 (Budgeted Time 1 Min)

Which of the following protocols provide the routing information at the autonomous system level?

Answer (Please select your correct option)

○ RIP ✓

○ OSPF

○ BGP

○ RIP and OSPF

ATM assigns each VC a _____ identifier that is divided two parts to produce a hierarchy.

Answer (Please select your correct option)

○ 21-bit

○ 22-bit

○ 23-bit

○ 24-bit ✓

The Gigabit Ethernet hardware operates at a rate of --------

Answer (Please select your correct option)

○ 10 Mbps

○ 100 Mbps

○ 1000 Mbps ✓

○ 10 Gbps

A------------ provides mechanism that automatically assignes a physical address to a station when the station first boots.

Answer (Please select your correct option)

○ Static addressing scheme

○ Configurable addressing scheme

○ Dynamic addressing scheme ✓

○ Dynamic Host Configuration

_____ identifies which application program on receiving computer should receive the data

Answer (Please select your correct option)

○ Logical address
Source port
Logical address

○ Source port

○ Destination Port

○ Physical Address

_____ identifies the application program that sent the data.

Answer (Please select your correct option)

○ Destination Port

○ Source port

○ Logical address

○ Physical Address

_____ uses distance vector approach to define routing

Answer (Please select your correct option)

○ BGP

○ OSPF

○ RIP

○ EGP

_____ is ideal in a situation where the group is small and all members are attached to contiguous Local Area Networks.

Answer (Please select your correct option)

○ Flood-and -Prune

○ Configuration-and -Tunneling

○ Core-Based Discovery

○ Forwarding

_____ is ideal in a situation where the group is geographically dispersed (i-e., has a few members at each site, with sites separated by long distances).

Answer (Please select your correct option)

○ Flood-and -Prune

○ Configuration-and -Tunneling

○ Core-Based Discovery

○ Forwarding

Which of the following is not a transmission medium?

Answer (Please select your correct option)

○ Copper wire

○ Coaxial cable

○ Optical fiber

○ Optical waves

Marks: 1 (Budgeted Time 1 Min)

"Frame type" field of the header consists of _____ bits.

Answer (Please select your correct option)

- 8
- 10
- 16   doubt
- 32

Marks: 1 (Budgeted Time 1 Min)

Mostly preamble and _____ is often not shown in Ethernet frame.

Answer (Please select your correct option)

- Frame type
- CRC
- Destination address
- Source address

Marks: 1 (Budgeted Time 1 Min)

Virtual Circuit connection identifier occupies _____ bits.

Answer (Please select your correct option)

- 16
- 24
- 32
- 8

Header of cell takes _____ of network capacity.

Answer (Please select your correct option)

○ 5%

○ 10%

○ 12%

○ 15%

_____ has a zero jitter.

Answer (Please select your correct option)

○ Virtual Private Network

○ Isochronous Network

○ Asynchronous Network   ← not sure

○ Synchronous Network

In network address suffix values will be _____.

Answer (Please select your correct option)

○ Half 1s

○ All 1s

○ Half 0s

○ All 0s

Special type of address in IPv6 used for multiple destinations; possibly not at same site is known as_____.

Answer (Please select your correct option)

- Unicast
- Anycast
- Multicast ✓
- Broadcast

In IPv6 the type of address used for collection of computers with same prefix is known as_____.

Answer (Please select your correct option)

- Cluster ✓
- Unicast
- Multicast
- Anycast

Connectionless service and arbitrary interaction are the characteristics of _____

Answer (Please select your correct option)

- TCP
- UDP ✓
- IP
- ICMP

_____ provides computer-to-computer communication also, called machine-to-machine communication.

Answer (Please select your correct option)

○ UDP

○ Transport Protocols

○ RIP

○ IP

_____ does not need to pre-establish communication and also there is no need to terminate communication.

Answer (Please select your correct option)

○ ICMP

○ UDP

○ TCP

○ IP

Three-way handshake is used to create a connection and requires each end to generate a random _____ sequence number.

Answer (Please select your correct option)

○ 8-bit

○ 64-bit

○ 32-bit

○ 16-bit

Typical internet routing uses a combination of two metrics_____.

Answer (Please select your correct option)

○ Administrative cost and routing metrics

○ Routing metrics and hop count

○ Administrative count and hop cost

○ Administrative cost and hop count

The routers within an autonomous system use a _____ to exchange routing information.

Answer (Please select your correct option)

○ Exterior Gateway protocol (EGPs)

○ Both Interior Gateway protocols (IGPs) and Exterior Gateway protocol (EGPs)

○ Border Gateway Protocol (BGP)

○ Interior Gateway protocols (IGPs)

_____ use IP-in-IP encapsulation to send multicast datagrams from one site on the Internet to another.

Answer (Please select your correct option)

○ Distance Vector Multicast Routing Protocol

○ Core Based Trees

○ Protocol Independent Multicast_ Sparse Mode

○ Protocol Independent Multicast _ Dense Mode

A Bridge forwards or filters a frame by comparing the information in its address table to the frame's_____.

Answer (Please select your correct option)

○ Layer 2 source address

○ Layer 3 source address

○ Layer 2 destination address

○ Layer 3 destination address

Network part of IP address needs not to be stored in_____ approach of ARP.

Answer (Please select your correct option)

○ Closed-form computation

○ Message Exchange

○ Table look-up

○ Direct indexing   doubt

Which method of Address Resolution Protocol is useful with any hardware?

Where "T" stands for Table lookup, "C" for Closed-form Computation and "D" for Data Exchange.

Answer (Please select your correct option)

○ T

○ C

○ D

○ C, D

Which method of Address Resolution Protocol adds traffic to a network?

Where "T" stands for Table lookup, "C" for Closed-form Computation and "D" for Data Exchange.

Answer (Please select your correct option)

○ C

○ T

○ D

○ D, C

_____ places the boundary between third and fourth octets.

Answer (Please select your correct option)

○ Class A

○ Class B

○ Class C

○ Class D

An Internet Address (IPv4 address) is a unique _____ binary number assigned to a host and used for all communication with other hosts.

Answer (Please select your correct option)

○ 48-bit

○ 32-bit

○ 24-bit

○ 12-bit

Whenever IP software handles a packet, it needs to separate the destination address into a _____ and _____.

Answer (Please select your correct option)

○ Infix, suffix

○ Postfix, Infix

○ Infix, prefix

○ Prefix, suffix ✓

Virtual packets serve same purpose on _____ as frames on _____

Answer (Please select your correct option)

○ Intranet, LAN

○ Internet, WAN

○ Intranet, WAN

○ Internet, LAN ✓

In the _____ large organizations began to acquire multiple networks.

Answer (Please select your correct option)

○ 1990s

○ 1970s ✓

○ 1960s

○ 1950s

Marks: 1 (Budgeted Time 1 Min)

A_____ is a special-purpose device dedicated to the task of interconnecting networks.

Answer (Please select your correct option)

○ Router

○ Hub

○ Switch

○ Repeater

Marks: 1 (Budgeted Time 1 Min)

Base header of IPv6 is fixed size and consists of _____ octets.

Answer (Please select your correct option)

○ 32

○ 64

○ 40

○ 16

Marks: 1 (Budgeted Time 1 Min)

IPV6 addresses are of_____:

Answer (Please select your correct option)

○ 128 bytes

○ 32 bits

○ 128 bits

○ 64 bits

Reliability is the responsibility of the _____ layer

Answer (Please select your correct option)

○ Network

○ Data link

○ Transport

○ Application

Which of the following protocols allow(s) the sender and receiver to enforce polices.

Answer (Please select your correct option)

○ RIP

○ OSPF

○ BGP

○ RIP and OSPF

In which process, backward compatibility of 100-base-T is done?

Answer (Please click here to Add Answer)

During transmission of data from source to destination in a network of 50 computers, some packets contain errors. In this situation, which field of IP datagram header will indicate about errors?

Answer (Please click here to Add Answer)

UDP and IP belong to different layers in OSI model and have different functionalities. What is the main difference of functionality between internet protocol and user datagram protocol?

Answer (Please click here to Add Answer)

Which gateway protocol is mostly used as EGP? List its two properties.

Answer (Please click here to Add Answer)

Suppose an organization wants voice communication in network by using ATM technology. Explain, how ATM eliminate the varying delays associated with variable size data packets?

Answer (Please click here to Add Answer)

Suppose in a computer network of Leather Company, network engineer wants to examine whether an incoming Ethernet frame contains an ARP message or not. Which field of header will be used for this purpose and what specific value is used for it?

Answer (Please click here to Add Answer)

Suppose an organization has multiple local area computer networks that are connected with each others through routers and RIP is used to manage routing information. You are required to write three main drawbacks of using RIP.

Answer (Please click here to Add Answer)

Marks: 3 (Budgeted Time 6 Min)

Consider an organization where a large scale network is deployed having both the static and dynamic environment for routing. How a network administrator can handle this static and dynamic routing when some update or change is required?

Answer (Please click here to Add Answer)

Marks: 5 (Budgeted Time 10 Min)

As you know all current standards use the general frame format, write the names of five frame fields and mention how much space each field, contains?

Answer (Please click here to Add Answer)

Marks: 5 (Budgeted Time 10 Min)

Suppose an organization has a computer network where multicasting is required. There are different types of multicast routing protocols that can be used in this scenario. You are required to enlist five multicast routing protocols with complete names.

Answer (Please click here to Add Answer)

In an organization where a large network is deployed and some remote location are connected to it. Write the name of the protocol that can be used for network troubleshooting. Also explain the ways it can be used.

Answer (Please click here to Add Answer)

With multiple technologies in networking field where change in a routing table can happen frequently, does a router in the global Internet can still use static routing? In case of yes/no, how large is the routing table in a router? Support your answer with example.

Answer (Please click here to Add Answer)