

Which subnet would include the address 192.168.1.96 as a usable host address?

192.168.1.64/26

192.168.1.32/27

192.168.1.32/28

192.168.1.64/29

**Explanation:** For the subnet of 192.168.1.64/26, there are 6 bits for host addresses, yielding 64 possible addresses. However, the first and last subnets are the network and broadcast addresses for this subnet. Therefore, the range of host addresses for this subnet is 192.168.1.65 to 192.168.1.126. The other subnets do not contain the address 192.168.1.96 as a valid host address.

What happens when the transport input ssh command is entered on the switch vty lines?

The SSH client on the switch is enabled.

The switch requires a username/password combination for remote access.

Communication between the switch and remote users is encrypted.

The switch requires remote connections via a proprietary client software.

**Explanations:** The transport input ssh command when entered on the switch vty (virtual terminal lines) will encrypt all inbound controlled telnet connections.

During the process of forwarding traffic, what will the router do immediately after matching the destination IP address to a network on a directly connected routing table entry?

analyze the destination IP address

switch the packet to the directly connected interface

look up the next-hop address for the packet

discard the traffic after consulting the route table

**Explanation:** A router receives a packet on an interface and looks at the destination IP address. It consults its routing table and matches the destination IP address to a routing table entry. The router then discovers that it has to send the packet to the next-hop address or out to a directly connected interface. When the destination address is on a directly connected interface, the packet is switched over to that interface

Which one of the following port security mode packets with unknown source addresses are dropped until and you are not notified that a security violation has occurred.

Protect                  shutdown                  restrict                  all                  None

**Explanation:** the port security mode notified in protect but not restrict, rather than protect three is increment violation counter in shutdown and restrict.

Which one of the following is needed when configuring DHCP on router?

Default-router    dns-server    domain-name    network-address    **All**

Which one of the following router configuration command is helpful to add banner for the router if the router is under global configuration mode

banner motd\*text\*    banner motd/text/    **banner motd#text#**    All

Which packet-forwarding method does a router use to make switching decisions when it is using a forwarding information base and an adjacency table?

fast switching

**Cisco Express Forwarding**

process switching

flow process

**Explanation:** Cisco Express Forwarding (CEF) is the fastest and preferred switching method. It uses a FIB and an adjacency table to perform the task of packet switching. These data structures change with the topology.

A router has a valid operating system and a configuration file stored in NVRAM. The configuration file contains an enable secret password but no console password. When the router boots up, which mode will display?

global configuration mode

setup mode

privileged EXEC mode

**user EXEC mode**

**Explanation:** If a Cisco IOS device has a valid IOS and a valid configuration file, it will boot into user EXEC mode. A password will be required to enter privileged EXEC mode.

While trying to solve a network issue, a technician made multiple changes to the current router configuration file. The changes did not solve the problem and were not saved. What action can the technician take to discard the changes and work with the file in NVRAM?

Issue the reload command without saving the running configuration.

Delete the vlan.dat file and reboot the device.

Close and reopen the terminal emulation software.

Issue the copy startup-config running-config command.

**Explanation:** The technician does not want to make any mistakes trying to remove all the changes that were done to the running configuration file. The solution is to reboot the router without saving the running configuration. The copy startup-config running-config command does not overwrite the running configuration file with the configuration file stored in NVRAM, but rather it just has an additive effect.

A client packet is received by a server. The packet has a destination port number of 80. What service is the client requesting?

DHCP

SMTP

DNS

HTTP

Kotlin was developed by?

IBM

**JetBrains**

NetBeans

Oracle

Kotlin is a statically-typed programming language which runs on the?

JCM

JPM

**JVM**

JDM

Why you should switch to Kotlin from Java?

Kotlin language is quite simple compared to Java

It reduces may redundancies in code as compared to Java

Kotlin can offer some useful features which are not supported by Java

**All of the above**

Kotlin is interoperable with Java because it uses JVM bytecode.

**Yes**

Can be yes or no

No

Cannot say

How can you declare a variable in Kotlin?

value my\_var: Char

my\_var: Char

value Char : my\_var

**value my\_var: Char**

How many types of constructors available in Kotlin?

1

**2**

3

Which of the following is Use for reading contents of file to ByteArray?

bufferedReader()

**readBytes()**

4

readText()

readLines()

What is the use of data class in Kotlin?

extract the basic data types

present the basic data types

delete the basic data types

**holds the basic data types**

Is there any Ternary Conditional Operator in Kotlin like in Java?

TRUE

**FALSE**

In Kotlin, one is used when you know what functionalities a class should have.

exception class

**abstraction class**

inheritance class

None of the above

A java package that provides classes and interfaces for network programming is\_\_?

**java.net**

java.Server

java.Socket

all

Which of the following is correct about socket programming?

Socket class is used for Connection less applications

DataGramSocket class is used for Connection oriented applications

**Clients must know IP address and Port No of the server**

None

Which one of the following is true about events?

**Found inside java.awt**

They are system actions

found inside javax.swing

None

What task is a must for a handler class during event handling in java?

Implementing listener interface

Overriding methods found inside the interface

Registering event handler method

**All**

Which one of the following is incorrect about constructors?

**They can be override**

They can be public

They must be same with the class

None

Which one of the following incorrect about non-static methods?

**They can be accessed using the class**

They can be accessed using objects

They can be accessed neither the class nor objects

All

A layout manager that align components using rows and columns is\_\_\_\_\_.

BorderLayout

**GridLayout**

TableLayout

FlowLayout

Which one JDBC drivers allows connecting java application with Oracle?

Java ODBC Bridge Driver

MySQL JDBC Driver

**Java JDBC pure java Driver**

None

One of the following JDBC API is not interface?

Driver

Connection

Statement

**DriverManager**

Which one of the following is a must requirement to connect database with java application?

IP Address, Port Number, Database Name, User name, Password

**IP Address, User name ,Password**

Table name, Database Name, Port Number

All

At what layer of the OSI reference model do routers operate?

Physical

Transport

Data-link

**Network**

Which layer of the OSI reference model is responsible for controlling access to the network medium?

**Data Link Layer**

Physical Layer

Network Layer

Transport Layer

Choose the **incorrect** combination of OSI model layer and its function.

Flow and error control – Transport Layer

Flow and error control – Data link Layer

**Connection control– Network Layer**

Dialog control – Session Layer

One of the following statements is not true about OSI reference model.

It was developed to allow systems with different platforms to communicate with each other.

It is a network model that defines the protocols for network communications.

Represents the seven layers of the process.

**None**

The packets of data that is transported by Internet protocol (IP) is called

**Datagrams**

Segments

Frames

Message

TCP/IP model does not have \_\_\_\_\_ layer but OSI model have.

Application layer

**Presentation layer**

Transport layer

Network layer

Which layer is used to link the network support layers and user support layers?

Session layer

Data link layer

**Transport layer**

Network layer

Which address is used on the internet for employing the TCP/IP protocols?

Physical address and logical address

Port address

Specific address

**All of the mentioned**

For long distance data transmission, which transmission system is more preferable?



Digital transmission

**Analog Transmission**

Both are equally used

None

Which of the following transmission impairment causes loss of signal strength due to long distance between sender and receiver.:

Noise

**Attenuation**

Delay distortion

Crosstalk

Which statement about constructors is false?

It cannot be marked as static and abstract.

It cannot be overridden

It creates an instance of a class.

**It must have different name as class name**

\_\_\_\_\_ is an instance of a class?

Method

constructor

**Object**

State

After an object is created, its data can be accessed and its methods invoked using the \_\_\_\_\_

scope resolution operator

**dot operator**

curly braces

addition operator2

Consider a scenario where Bank is a class that provides a method to get the rate of interest. However, the rate of interest may differ according to banks. For example, Zemen, Dashen, and Abyssinia banks are providing 7%, 14.5% and 7.5% rate of

interest?

Which polymorphism behaviour do you see in this scenario?

Method Overloading

Constructor Overriding

**Method Overriding**

Constructor Overloading

Based on the following section of program

```
public class Add{  
    public int add(int a , int b){  
        return (a + b);}   
    public int add(int a , int b , int c){  
        return (a + b + c) ;  
    } } 
```

Which polymorphism behaviour do you see in this program?

**Method Overloading**

Constructor Overriding

Method Overriding

Constructor Overloading

\_\_\_\_\_ is a special type of method that is used to initialize an object of its class?

Variable

Structure

**Constructor**

Fields3

\_\_\_\_\_ is a software development environment which is used to develop Java applications and applets.

JRE

**JVM**

JDK

JIT

Which Java keyword used to refer to the current class instance variable?

this

super

new

private

Which access specifier in java can be accessed from the same class, the same package, and a subclass?

Protected

Private

Public

Default

What is the wrong statement regarding static method and variables in java?

Static method and variable belongs to a class rather than objects

No need to create object to access static method and variable

Static method and variable belongs to instance of a class

Define to static variable and method is common to all the objects of the class