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Started on Thursday, 23 September 2021, 11:08 AM

State Finished

Completed on Thursday, 23 September 2021, 11:17 AM

Time taken 8 mins 57 secs

Grade 80.00 out of 80.00 (100%)

Question 1

Correct

Mark 2.00 out of
2.00

The router has a 172.16.2.1/23 IP address on ethernet4. Which of the following can be valid host IDs on the LAN interface attached to the router?

Select one:

- ☐ a. 172.16.2.0
- ☐ b. 172.16.4.32
- ☐ c. None of the Options
- ☒ d. 172.16.3.254 ✓
- ☐ e. 172.16.4.0

The correct answer is: 172.16.3.254

Question 2

Correct

Mark 5.00 out of
5.00

Osica Inc. is an IaaS cloud service provider, who is planning to construct a new generation data center in Hyderabad in the year 2024 (Leap year). They use shipping containers for consolidating the data center that is a pre-packaged unit of management. You are given the following information for a viability study. Each shipping container has self-contained networking, servers, air conditioning units, and UPS. A container has 25 server racks, each with 15 servers. Each server has 64 CPU cores. It costs INR 500L to purchase and deploy one container (1L = INR 1,00,000). For each server, the electricity load consumed by the computing-related activities is 150W per hour. This load is constant and does not change based on the usage level of the servers. This load does not include non-computing related power usage, such as for AC, lighting, etc. It costs INR 10L/month to rent a warehouse that can store up to 5 containers. The electricity board charges you INR 15 per KWh of power. A system administrator's salary is Rs. 1.5L per month and one system administrator can manage up to 5 containers. Assume that there are no additional charges for network bandwidth, taxes, security guard, etc. Say you plan to initially purchase 10 containers for the data center. Calculate the total cost spent in the first three months (January to March), including infrastructure cost.

Select one:

- ☒ a. 5253.275L ✓
- ☐ b. None of these
- ☐ c.
5083.750L
- ☐ d. 6297.672L

The correct answer is: 5253.275L

Question 3

Correct

Mark 2.00 out of
2.00

Which IP address is used to test the IP stack on your laptop/PC?

Select one:

- ☐ a. 255.255.255.127
- ☐ b.
127.0.0.0
- ☒ c.
127.255.254.255 ✓
- ☐ d. 127.255.255.255
- ☐ e. None of the Options

The correct answer is:

127.255.254.255

Question 4

Correct

Mark 2.00 out of
2.00

..... used to manage VMs.

Select one:

- ☐ a. AMM (Automatic memory management)
- ☐ b. Storage Manager
- ☐ c. None of the options
- ☒ d. Virtual Machine Manager/Monitor ✓
- ☐ e. Middleware
- ☐ f. Central Processing Unit

The correct answer is: Virtual Machine Manager/Monitor

Question 5

Correct

Mark 5.00 out of
5.00

The big apple mining company has two options to satisfy the requirements, which are given as follows.

Expenditure	On Premises	Cloud (Cost/Hour)
Servers Purchase Cost	\$ 70,000	\$ 1
Network	\$ 60,000	\$ 2
Storage	\$ 65,000	\$ 5
Power and cooling	\$ 2 /hour	-
Management Cost	\$ 2 /hour	\$ 1

Calculate the total cost and select the most suitable option.

Select one:

- ☐ a.
Cost of cloud will be more than on-premises after 4 years of service usage
- ☐ b.
Cost of cloud will be more than on-premises after 3 years of service usage
- ☒ c.
Cost of cloud will be more than on-premises after 5 years of service usage ✓
- ☐ d.
Cost of cloud will be more than on-premises after 2 years of service usage

The correct answer is:

Cost of cloud will be more than on-premises after 5 years of service usage

Question 6

Correct

Mark 3.00 out of

3.00

Pool A

- A → Elastic Compute Cloud
- B → Lambda
- C → Elastic Container Service (ECS)
- D → Elastic Beanstalk
- E → Simple Storage Service (S3)

Pool B

I

Easy-to-use service for deploying and scaling web applications and services developed with Java, .NET, PHP, Node.js, Python

II

Is an object storage service that offers industry-leading scalability, data availability, security,

III

Run code without thinking about servers. Pay only for the compute time you consume

IV

Secure and resizable compute capacity (virtual servers) in the cloud

V

Highly secure, reliable, and scalable way to run containers

Match the following from Pool A to Pool, and Mark the correct option.

Select one:

- ☐ a. None of the
- ☐ b. A-2, B-3, C-5, D-1, and E-4
- ☒ c. A-4, B-3, C-5, D-1, and E-2 ✓
- ☐ d. A-3, B-5, C-4, D-1, and E-2
- ☐ e. A-2, B-3, C-5, D-4, and E-1

The correct answer is: A-4, B-3, C-5, D-1, and E-2

Question 7

Correct

Mark 4.00 out of

4.00

Hypervisors are running on server hardware directly is called as and Hypervisors are having the resources controlled by the host operating system. The example of a type 1 hypervisor is and its opposite example of the hypervisor is

As per the above question, mark the possible correct option.

Select one or more:

- ☐ a. Type 1, Type 2, VMware vSphere, Xen
- ☐ b. Bare Metal, Type 2, Oracle VM VirtualBox, Microsoft Hyper-V
- ☐ c. Type 2, Type 1, VMware vSphere, VMware Workstation
- ☒ d. Type 1, Hosted, VMware vSphere, VMware Workstation ✓
- ☐ e. Type 1, Type 2, Microsoft Virtual PC, Xen

The correct answer is: Type 1, Hosted, VMware vSphere, VMware Workstation

Question 8

Correct

Mark 3.00 out of

3.00

Which statement/s is/are correct about the IP address 10.15.5.215/23 in a subnet in a VPC? (Mark two)

Select one or more:

- ☒ a. The first valid host address is 10.15.4.4 with a subnet mask 255.255.254.0. ✓
- ☐ b. The subnet address is 10.15.5.0 with a subnet mask 255.255.254.0
- ☐ c. The VPC router address in the subnet is 10.15.4.1 with a subnet mask 255.255.255.0.
- ☒ d. The broadcast address of the subnet is 10.15.5.255 with a subnet mask 255.255.254.0. ✓

The correct answers are: The broadcast address of the subnet is 10.15.5.255 with a subnet mask 255.255.254.0., The first valid host address is 10.15.4.4 with a subnet mask 255.255.254.0.

Question 9

Correct

Mark 2.00 out of
2.00

For the given IPV4 address **150.10.0.0**, find Network ID, Broadcast ID, and Usable host IP respectively and select the correct option. (Please consider it as a general case, not AWS)

Select one:

- ☐ a. NID - 150.10.0.0, BID- 150.255.255.255 and 65534 are Usable IP
- ☐ b. NID - 150.10.10.0, BID- 150.10.255.255 and 65534 are Usable IP
- ☒ c. NID - 150.10.0.0, BID- 150.10.255.255 and 65534 are Usable IP ✓
- ☐ d. NID - 150.10.0.0, BID- 150.10.255.255 and 65536 are Usable IP
- ☐ e. None of the option

The correct answer is: NID - 150.10.0.0, BID- 150.10.255.255 and 65534 are Usable IP

Question 10

Correct

Mark 1.00 out of

1.00

Suppose a processor has 10 cores and each core can run 8 threads. If each thread can execute five instructions at the same time, then how many instructions can be executed in that processor?

Select one:

- ☐ a. 80
- ☐ b. 100
- ☒ c. 400 ✓
- ☐ d. 200
- ☐ e. 50

The correct answer is: 400

Question 11

Correct

Mark 3.00 out of
3.00

Fill in the blanks by choosing the correct combination(as per the sequence of fill in the blanks) from the options.

1. availability zones are there in AWS
2. TCO is the financial estimate to help identify.....
3. AWS Lambda is used for
4. AWS utility-style pricing model does not include.....

Select one:

- ☐ a. None of the options is satifying
- ☐ b. 81, Indirect Cost of the system, Super Computing and Pay more when you use more respectively.
- ☒ c. 81, Direct and Indirect Cost of the system, Serverless Computing and Pay more when you use more respectively. ✓
- ☐ d. 81, Direct and Indirect Cost of the system, Serverless Computing and Pay less when you use more respectively.
- ☐ e. 81, Indirect Cost of the system, Serverless Computing and Pay more when you use more respectively.

The correct answer is: 81, Direct and Indirect Cost of the system, Serverless Computing and Pay more when you use more respectively.

Question 12

Correct

Mark 5.00 out of
5.00

Consider a scenario where Mr. Glen, CEO of The Matrix Inc. wants to use a cloud service from AWS. The service level agreement guarantees negotiated between Matrix Inc and AWS prior to initiating business are as follows.

- Availability guarantee: 99.5% time over the service period
- Service Month: **August**
- Maximum service hours per day: 15 hours
- Cost: INR 1500 per day

Service credits are awarded to customers if availability guarantees are not satisfied. Monthly connectivity uptime service level are given as follows.

- Monthly uptime percentage < 99.5%, Service credit: 15%
- Monthly uptime percentage < 99%, Service credit: 25%
- Monthly uptime percentage < 90%, Service credit: 35%.

However, in reality, it was found that over the service period, the cloud service suffered five outages of durations: 1 hour 30 mins, 30 mins, 50 mins, 20 mins, and 120 mins, each on different days, due to which normal service guarantees were violated. If SLA negotiations are honored, compute the effective cost payable towards buying the cloud service.

Select one:

- ☐ a. INR 46500
- ☐ b. None of the Options
- ☒ c. INR 34875 ✓
- ☐ d. INR 34475
- ☐ e. INR 11625

The correct answer is: INR 34875

Question 13

Correct

Mark 2.00 out of
2.00

Which of the following is the best suitable security control way at the subnet layer of a VPC? (Select the best answer)

Select one:

- ☐ a. Always use NAT Gateway in all the Subnet.
- ☒ b. Create the Network Access Control List and set the desirable rules in it for the all type of traffic. ✓
- ☐ c. Create Security Group on subnet Level and Instance Level
- ☐ d. None of the options
- ☐ e. Block all Traffic in the inbound rules of Security Group on subnet Level and Instance Level

The correct answer is: Create the Network Access Control List and set the desirable rules in it for the all type of traffic.

Question 14

Correct

Mark 2.00 out of
2.00

In the AWS Cloud Computing Lab, Mr. Mayesh wants to connect two window EC2 Instances privately of the same VPC but both the EC2 instances are not connecting (not pinging to each other). Then help him by suggesting the best suitable technical option from the below options.

Select one:

- ☐ a. He should also add the HTTP and HTTPS rule as the Inbound rule in the security group of both the EC2 Instances.
- ☐ b. He should ask Lab instructor on WhatsApp.
- ☐ c. None of the options
- ☒ d. He should also add ICMP V4 rule as the Inbound rule in the security group of both the EC2 Instances. ✓
- ☐ e. He should also add the RDP rule as the Inbound rule in the security group of both the EC2 Instances.

The correct answer is: He should also add ICMP V4 rule as the Inbound rule in the security group of both the EC2 Instances.

Question 15

Correct

Mark 2.00 out of
2.00

A company wants to configure a virtual server in a subnet 192.168.20.24/29 on a VPC with CIDR 192.168.20.0/24. What should be the first usable IP address that can be assigned to the virtual server?

Select one:

- ☐ a. 192.198.20.26 with a subnet mask 255.255.255.148
- ☐ b. 192.168.20.26 with a subnet mask 255.255.255.248
- ☐ c. 192.168.20.28 with a subnet mask 255.255.255.240
- ☒ d. 192.168.20.28 with a subnet mask 255.255.255.248 ✓
- ☐ e. 192.168.20.24 with a subnet mask 255.255.255.0

The correct answer is: 192.168.20.28 with a subnet mask 255.255.255.248

Question 16

Correct

Mark 2.00 out of
2.00

Mark the correct options. The Dimensions of scalability characterization of any cloud-based system are

Select one:

- ☐ a. Infrastructure Size Scalability
- ☒ b. All of the options ✓
- ☐ c. Software Scalability
- ☐ d. Auto Scaling of any resource
- ☐ e. Platform Scalability

The correct answer is: All of the options

Question 17

Correct

Mark 2.00 out of
2.00

In a cloud formed by a cluster of servers, all servers must be selected as follows.

Select one:

- ☒ a. The cloud machines can be either physical or virtual servers. ✓
- ☐ b. None of the Options
- ☐ c. All cloud machines must be built on physical servers.
- ☐ d. The cloud machines can be either logical or virtual servers.
- ☐ e. All cloud machines must be built with virtual servers.

The correct answer is: The cloud machines can be either physical or virtual servers.

Question 18

Correct

Mark 2.00 out of
2.00

Mark the best correct options which satisfied the cost-effectiveness for a workload with dynamic user demand? (Choose two.)

Select one or more:

- ☐ a. Reliability
- ☐ b. Availability
- ☐ c. Shared Security Model
- ☒ d. Pay-as-you-go pricing ✓
- ☒ e. Elasticity ✓

The correct answers are: Elasticity, Pay-as-you-go pricing

Question 19

Correct

Mark 2.00 out of

2.00

Choose the correct statement/s: (Select Two)

Select one or more:

- ☐ a. An internet gateway is a horizontally scaled, redundant, and highly available VPC component that prevents communication between your VPC and the internet.
- ☒ b. A public subnet created using VPC wizard is by default associated with the Internet Gateways. ✓
- ☐ c. An auto-assigned public IP address is by default enabled for the Amazon EC2 instance created in the public subnet of a custom VPC.
- ☐ d. A NAT gateway is created in the private subnet to connect the instance present in the private subnet to the Internet.
- ☒ e. An Amazon EC2 instance within a private subnet of a VPC can communicate with another EC2 instance which is present in the public subnet of another VPC using a VPC peering connection. ✓

The correct answers are: An Amazon EC2 instance within a private subnet of a VPC can communicate with another EC2 instance which is present in the public subnet of another VPC using a VPC peering connection. , A public subnet created using VPC wizard is by default associated with the Internet Gateways.

Question 20

Correct

Mark 3.00 out of
3.00

The AWS Well-Architected Framework has five pillars. Two of the pillars are security and operational excellence. What are the other pillars of the well-architected Framework? (Select Three options)

Select one or more:

- ☒ a. Performance Efficiency ✓
- ☒ b. Cost Optimization ✓
- ☐ c. Risk Management
- ☐ d. Governance
- ☒ e. Reliability ✓

The correct answers are: Reliability, Performance Efficiency, Cost Optimization

Question 21

Correct

Mark 2.00 out of
2.00

Which of the following services need to be negotiated in Service Level Agreements?

Select one:

- ☐ a. Auditing
- ☐ b. Service Availability
- ☐ c. Regulatory compliance
- ☒ d. All of the Options ✓
- ☐ e. Logging

The correct answer is: All of the Options

Question 22

Correct

Mark 2.00 out of
2.00

The services; Cisco WebEx, Amazon EC2 service, Google App Engine, CloudFormation, and Dropbox service are

Select one:

- ☐ a. SaaS, IaaS, IaaS, IaaS and IaaS; respectively
- ☐ b. IaaS, PaaS, XaaS, SaaS and SaaS; respectively
- ☐ c. IaaS, PaaS, XaaS, SaaS and IaaS; respectively
- ☒ d. SaaS, IaaS, PaaS, IaaS and SaaS; respectively ✓

The correct answer is: SaaS, IaaS, PaaS, IaaS and SaaS; respectively

Question 23

Correct

Mark 5.00 out of

5.00

The big apple mining company has two options to satisfy the requirements, which are given as follows.

Expenditure	On Premises	Cloud (Cost/Hour)
Servers Purchase Cost	\$ 70,000	\$ 1
Network	\$ 60,000	\$ 2
Storage	\$ 65,000	\$ 5
Power and cooling	\$ 2 /hour	-
Management Cost	\$ 2 /hour	\$ 1

Using data given in the table, how much saving will be done using the cloud after two years.

Select one:

- ☒ a.
\$ 1,07,400 ✓
- ☐ b.
\$ 2,65,080
- ☐ c. None of these
- ☐ d.
\$1,57,680

The correct answer is:

\$ 1,07,400

Question 24

Correct

Mark 2.00 out of
2.00

Mark the incorrect statements. (Select 2 options)

Select one or more:

- ☐ a. If a subnet is associated with a routing table that has a route to the Internet gateway, it's known as a *public subnet*.
- ☒ b. An elastic IP address is a static private IP address that can be used to assign to an instance in a region ✓
- ☐ c. VPC Endpoint is comparatively cheaper than NAT gateways.
- ☐ d. The security group is stateful whereas Network Access Control List (NACL) is stateless.
- ☒ e. All AWS VPCs are logically connected to each other in a region. ✓

The correct answers are:

All AWS VPCs are logically connected to each other in a region., An elastic IP address is a static private IP address that can be used to assign to an instance in a region

Question 25

Correct

Mark 2.00 out of
2.00The IPV4 Address **200.10.20.10/39**, can be used as the best combination for connecting three routers.

Select one:

- ☐ True
- ☒ False ✓

The correct answer is 'False'.

Question 26

Correct

Mark 3.00 out of
3.00

Choose the incorrect statement/s: (Choose 2 options)

Select one or more:

- ☒ a. The hosted hypervisor has direct access to the hardware and host resources. ✓
- ☐ b.
In virtualization, an operating system is installed on each guest machine and the required resources are also allocated to the virtual machines.
- ☒ c. Operating System-Level Virtualization is also known as Containerization. ✗
- ☒ d. Virtualization is a technique that can be used to only add many resources to the desired number of logical resources. It can not be used to split a physical resource into the desired number of virtual resources. ✓
- ☐ e.
Hyper-V and Xenserver are examples of native hypervisors.

The correct answers are: The hosted hypervisor has direct access to the hardware and host resources., Virtualization is a technique that can be used to only add many resources to the desired number of logical resources. It can not be used to split a physical resource into the desired number of virtual resources.

Question 27

Correct

Mark 2.00 out of
2.00

Mr. Shashwat created his AWS account first time for learning AWS Cloud. He is working on the default VPC of any region. So he does not need to create any IGW for the internet reachability of any EC2 instance.

Select one:

- ☒ True ✓
- ☐ False

The correct answer is 'True'.

Question 28

Correct

Mark 2.00 out of

2.00

Follow the given below URL and Mark the correct option about the Worldwide Public Cloud Services End-User Spending Forecast (Millions of U.S. Dollars)

<https://www.gartner.com/en/newsroom/press-releases/2021-04-21-gartner-forecasts-worldwide-public-cloud-end-user-spending-to-grow-23-percent-in-2021>

Select one:

- ☐ a. None of the options
- ☒ b. Cloud System Infrastructure Services (IaaS) having the second-highest growth and Cloud Application Services (SaaS) is on top in all three years. ✓
- ☐ c. Cloud System Infrastructure Services (IaaS) having the highest growth and Cloud Application Services (SaaS) is in the second position in all three years.
- ☐ d. Cloud Desktop as a Services (DaaS) having the highest growth and Cloud Application Services (SaaS) is in the second position in all three years.
- ☐ e. Cloud Desktop as a Services (DaaS) having the second-highest growth and Cloud Application Services (SaaS) is in the third position in all three years.

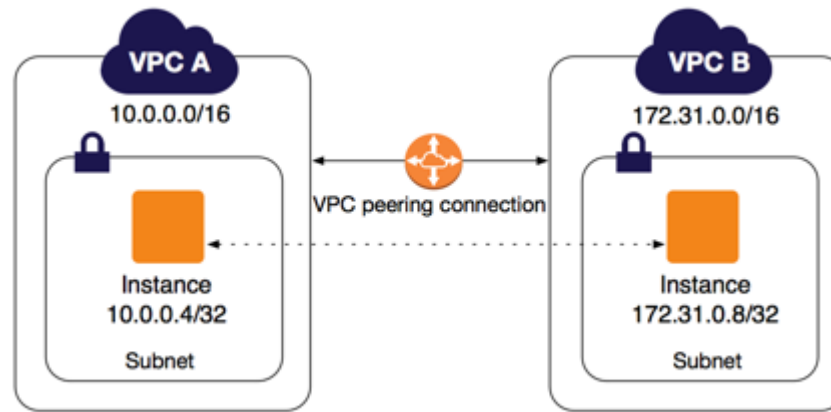
The correct answer is: Cloud System Infrastructure Services (IaaS) having the second-highest growth and Cloud Application Services (SaaS) is on top in all three years.

Question 29

Correct

Mark 3.00 out of

3.00



As per the given above diagram, assume that both the VPC are of the same AWS Account. See the VPC Peering Diagram, and Mark all Incorrect Options. (Select 3)

Select one or more:

- ☒ a. If both the VPCs are in different regions then common NACL can be attached to both subnets at a time as a working NACL. ✓
- ☐ b. As per the given CIDR, both the VPC can peer.
- ☒ c. Suppose, If both the VPCs are in different regions and the user has to transfer the bulk of data transfer every month for its private subnet instance then the set up of NAT Gateway will be cost effective approach over the VPC Peering. ✓
- ☐ d. After the VPC Peering, all the instances can communicate and will be reachable to each other. (Assume that NACL is Optional in both VPC)
- ☒ e. Both EC2 Instances can use the same security group even though both the VPCs are in a different region. ✓

The correct answers are: If both the VPCs are in different regions then common NACL can be attached to both subnets at a time as a working NACL., Both EC2 Instances can use the same security group even though both the VPCs are in a different region., Suppose, If both the VPCs are in different regions and the user has to transfer the bulk of data transfer every month for its private subnet instance then the set up of NAT Gateway will be cost effective approach over the VPC Peering.

Question 30

Correct

Mark 3.00 out of

3.00

XYZ Inc. wants to create an AWS VPC with CIDR block 172.31.0.0/20. The company wants to create 8 subnets to efficiently manage the resources in the VPC. The virtual private cloud space is equally divided among 8 subnets. What is the maximum number of usable IP addresses in each subnet?

Select one:

- ☐ a. 02
- ☒ b. 507 ✓
- ☐ c. 512
- ☐ d. 100
- ☐ e. 251

The correct answer is: 507