Exam Report: 15.5.7 Practice Questions

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Overall Performance

Your Score: 23%

Passing Score: 80%

View results by: Objective Analysis Individual Responses

Individual Responses

Question 1: Correct

Which of the following is the least effective power loss protection for computer systems?

- Secondary power source
- Backup power generator
- Surge protector
- Uninterruptible power supply

Explanation

A surge protector provides no power loss protection.

A UPS, a secondary power source, and a backup power generator all provide reasonable protection from power loss.

References

LabSim for Network Pro, Section 15.5.
[netpro18v5_all_questions_en.exm CISSP-1012 [15]]

Question 2: Incorrect

You manage the website for your company. The website uses a cluster of two servers with a single shared storage device. The shared storage device uses a RAID 1 configuration. Each server has a single connection to the shared storage and a single connection to your ISP.

You want to provide redundancy so that a failure in a single component does not cause the website to become unavailable. What should you add to your configuration to accomplish this?

- Connect one server to the internet through a different ISP .
- ~~On each server, add a second network connection to the internet.~~
- On each server, add a second network connection to connect the server to the shared storage device.
- Reconfigure the disk array in a RAID 1+0 configuration.

Explanation

In this scenario, the ISP is the single point of failure. If the ISP connection goes down, then the website is unavailable. Connecting one server to a different ISP or both servers to two ISPs provides redundancy for the connection.

Adding multiple network connections to the shared storage or the same ISP is unnecessary because if the single network connection on one server fails, the other server will still be available. Reconfiguring the storage as a RAID 1+0 allows multiple disk failures, but RAID 1 can sustain a failure in a single disk.

References

[netpro18v5_all_questions_en.exm SP08_6-1 6]

Question 3: Incorrect

Beside protecting a computer from under-voltages, a typical UPS also performs which two actions?

- [x] Protects from over-voltages
- [ ] Conditions the power signal
- [x] ~~Prevents electric shock~~
- [ ] Prevents ESD

Explanation

A typical UPS protects a computer from over-voltages as well as under-voltages. Also, because the quality of the electrical signal provided by a UPS battery is not as good as the AC power from the wall outlet, UPS devices often have built-in line conditioners.

References

LabSim for Network Pro, Section 15.5.
[netpro18v5_all_questions_en.exm SRVP_6-2 [83]]

Question 4: Correct

Components within your server room are failing at a rapid pace. You discover that the humidity in the server room is at 60%, and the temperature is 80 degrees.

What should you do to help reduce problems?

- (•) Add a separate A/C unit in the server room.
- ( ) Add a de-humidifier to the server room.
- ( ) Add a humidifier to the server room.
- ( ) Add line conditioners in the server room.

Explanation

Keep the server room temperature between 70 and 74 degrees to prevent components from overheating. In many cases, the server room is the hottest location in your building because of the heat generated by the computer components. In most cases, you need a separate A/C unit in the server room so that you can maintain its temperature without adversely affecting the rest of the building.

Keep humidity between 40 and 60 percent to prevent electrostatic discharge (ESD). Line conditioners (also known as power conditioners) are used to improve the quality of the power by performing one or more of the following:

- Removing noise caused by EMI and RFI.
- Providing small amounts of additional power to defend against power dips or sags.
- Preventing damage from spikes and surges.

References

LabSim for Network Pro, Section 15.5.
[netpro18v5_all_questions_en.exm SP08_6-5 4]

Question 5: Incorrect

You maintain the network for an industrial manufacturing company. You are concerned about the dust in the area getting into server components and affecting the availability of the network.

Which of the following should you implement?

- ( ) Negative pressure system
- ( ) Positive pressure system
- (•) ~~UPS~~

- Line conditioner
- Backup generator

Explanation

Use positive pressure systems. Positive pressure systems protect the air quality in the facility by causing air to be forced out through doors, windows, and other openings. Negative pressure systems draw air in, potentially bringing in airborne particles such as dust, smoke from a fire, or contamination from a chemical leak. Positive pressure systems are more energy effective.

Line conditioners (also known as power conditioners) are used to improve the quality of the power by performing one or more of the following:

- Removing noise caused by EMI and RFI.
- Providing small amounts of additional power to protect equipment from power dips or sags.
- Protecting equipment from spikes and surges.

Most UPS systems include line conditioners.

References

LabSim for Network Pro, Section 15.5.
[netpro18v5_all_questions_en.exm SP08_6-5 5]

Question 6: Incorrect

You are adding a new rack to your data center, which will house two new blade servers and a new switch. The new servers will be used for virtualization.

The only space you have available in the data center is on the opposite side of the room from your existing rack, which already houses several servers, a switch, and a router. You plan to configure a trunk port on each switch and connect them with a straight-through UTP cable that will run across the floor of the data center.

To protect equipment from power failures, you also plan to install a UPS in the rack along with redundant power supplies for the server.

Will this configuration work?

- No. You should not use blade servers for virtualization.
- No. You must implement the UPS and power supplies to the rack externally.
- ~~Yes. This configuration complies with data center best practices.~~
- No. You must use a cross-over cable to connect the two switches together.
- No. You should not run a cable across the floor of the data center.

Explanation

In this scenario, running a cable across the floor of the data center represents a tripping hazard. It also represents a point of failure, as the cable will be walked on constantly, resulting in it being kicked out of one or both jacks. It will also likely fail prematurely due to the excessive wear. A better option would be to run the through the ceiling plenum.

Blade servers work well for virtualization as long as they meet the system requirements for the hypervisor software. In the early days of networking, cross-over cables were required to uplink two hubs or switches together. However, most modern switches implement Auto MDI-X, which detects whether cross-over is required and automatically configures the interface for you, making a crossover cable unnecessary. Rack-mounted power supplies and UPS devices are commonly used in data centers.

References

LabSim for Network Pro, Section 15.5.
[netpro18v5_all_questions_en.exm RT NP15_5.7-1]

Question 7: Incorrect

You are adding a new rack to your data center, which will house two new blade servers and a new switch. The new servers will be used for file storage and a database server.

The only space you have available in the data center is on the opposite side of the room from your existing rack, which already houses several servers, a switch, and a router. You plan to configure a trunk port on

each switch and connect them with a cross-over UTP plenum cable that will run through the suspended tile ceiling of the data center.
To provide power for the new devices, you had an electrician install several new 20-amp wall outlets near the new rack. Each device in the rack will be plugged directly into one of these new wall outlets.

What is wrong with this configuration? (Select two.)

- [x] ~~You must use a straight-through cable to connect the two switches together.~~
- [ ] You should not run a plenum cable through a suspended tile ceiling.
- [x] You should implement a UPS between the wall outlet and the network devices.
- [ ] You should not connect networking equipment to a 20-amp wall circuit.
- [ ] You should implement redundant power supplies for the network devices.

Explanation

In this scenario, all devices in the new rack will go down if the power from the wall outlet fails for some reason (such as a power outage). To prevent this from happening, a UPS should be implemented between the wall outlets and the network devices. In addition, the power supplies used by computing equipment have finite life spans and fail frequently. Because these are mission-critical devices, you should consider implementing redundant power supplies.
Plenum network cabling is specifically designed to run through a suspended tile ceiling. The space between the suspended tile and the physical ceiling is called a ceiling plenum. In the early days of networking, cross-over cables were required to uplink two hubs or switches together. Most modern switches implement Auto MDI-X, which detects whether cross-over is required and automatically configures the interface, allowing you to use either a cross-over or straight-through cable. Using a 20-amp circuit for networking equipment is considered a data center best practice. Connecting too many devices to a standard 15-amp wall circuit can overload it and trip its breaker.

References

LabSim for Network Pro, Section 15.5.
[netpro18v5_all_questions_en.exm RT NP15_5.7-5]

Question 8: Incorrect

You have purchased a solar backup power device to provide temporary electrical power to critical systems in your data center should the power provided by the electrical utility company go out. The solar panel array captures sunlight, converts it into direct current (DC), and stores it in large batteries.

The power supplies in the servers, switches, and routers in your data center require alternating current (AC) to operate.

Which electrical device should you implement to convert the DC power stored in the batteries into AC power that can be used in the data center?

- ( ) Transformer
- ( ) Inverter
- (•) ~~Transistor~~
- ( ) Capacitor

Explanation

A power inverter changes direct current (DC) power to alternating current (AC) power. In this scenario, a power inverter can be used to convert the DC power stored in the batteries to AC power that your servers, switches, and routers can use in an emergency.

A transformer is typically used to increase or decrease the voltage of AC power. A capacitor temporarily stores an electrical charge. Capacitors are used with the chips on a computer memory module that store data. A transistor is used to amplify and switch electrical signals.

References

LabSim for Network Pro, Section 15.5.
[netpro18v5_all_questions_en.exm RT NP15_5.7-2]

Question 9: Incorrect

You have been struggling to keep the temperature in your server room under control. To address this issue, you have decided to reconfigure the room to create hot and cold aisles.

Which of the following are true concerning this configuration? (Select two.)

- [ ] The hot aisle should face the air conditioner's output ducts.
- [x] ~~The cold aisle should face the air conditioner's return duct.~~
- [ ] The rear of your servers should face the cold aisle.
- [x] ~~The front of your servers should face the hot aisle.~~
- [ ] The rear of your servers should face the hot aisle.
- [ ] The front of your servers should face the cold aisle.

Explanation

The use of hot and cold aisles within the server room is an effective method for reducing the temperature. The front of your servers should face the cold aisle. This allows them to draw in cooler air to reduce the temperature of system components. The rear of your servers should face the hot aisle. This ensures the hot air is directed away from other server systems. The hot aisle should face the air conditioner's return duct. This allows the heated air to be cooled by the AC system. The cold aisle should face the air conditioner's output ducts. This ensures cool air is drawn into servers to cool their components.

References

LabSim for Network Pro, Section 15.5.
[netpro18v5_all_questions_en.exm RT NP15_5.7-6]

Question 10: Correct

You've just installed a new 16U wall-mounted rack in your data center. You need to install the following equipment in this rack:

- A 4U redundant power supply
- A 4U server
- A 2U switch
- router

Which of the following equipment will also fit in this rack along with the above equipment?

- ( ) 4U firewall
- ( ) 4U UPS
- (•) 2U UPS
- ( ) 3U server

Explanation

The height of a rack is measured in rack units (Us). A rack unit (1U) is 1.75 inches tall and represents one slot in the rack. When purchasing rack-mounted network devices, you'll notice that their height is specified in rack units. For example, a 2U server is 3.5" tall and fills 2 slots in a server rack. In this scenario, the 16U rack already has 14U of equipment installed. Therefore, only a device 2U (or less) can be installed.

References

LabSim for Network Pro, Section 15.5.
[netpro18v5_all_questions_en.exm RT NP15_5.7-9]

Question 11: Incorrect

Your 24U rack currently houses two 4U server systems. To prevent overheating, you've installed a rack-mounted environment monitoring device within the rack.

Currently, the device shows that the temperature within the rack is 70 degrees Fahrenheit (21 degrees Celsius).

What should you do?

- Install a humidifier to increase the humidity within the server room.
- Install an additional air conditioning unit for the server room.
- Nothing. The temperature within the rack is within acceptable limits.
- ~~Re-orient the cold aisle within the server room so that it is directed toward the air conditioner's return duct.~~

Explanation

The ideal temperature for computing equipment is around 68 degrees Fahrenheit (20 degrees Celsius). Therefore, a reading of 70 degrees Fahrenheit (21 degrees Celsius) within a server rack is not an issue of concern.

Under the current environmental conditions, installing an additional air conditioning unit isn't necessary and would be very expensive. Installing a humidifier in the server room would have no effect on the temperature within the room and is not warranted given the data in the scenario. Reorienting the cold aisle within the server room so that it is directed toward the air conditioner's return duct would likely cause the temperature within the server room to increase.

References

LabSim for Network Pro, Section 15.5.
[netpro18v5_all_questions_en.exm RT NP15_5.7-11]

Question 12: Incorrect

You have been hired by a startup company to install a new data center. The company is small, so they have elected to use an unused employee break room as the data center.

You are concerned about the physical security of the servers that will be installed in the data center.

What should you do? (Select two.)

- [x] Install racks with locking doors.
- [ ] Install two-post 48U racks.
- [x] ~~Install two-post 24U racks.~~
- [ ] Install a humidifier within the data center.
- [ ] Install a biometric lock on the data center door.

Explanation

To physically protect the servers within the new data center, you should:

- Install rack enclosures with locking doors.
- Install a biometric lock on the data center door.

By doing this, you implement a defense in depth strategy. Even if an intruder were to defeat the biometric lock on the data center door, they would still have to defeat the lock on the rack enclosure.

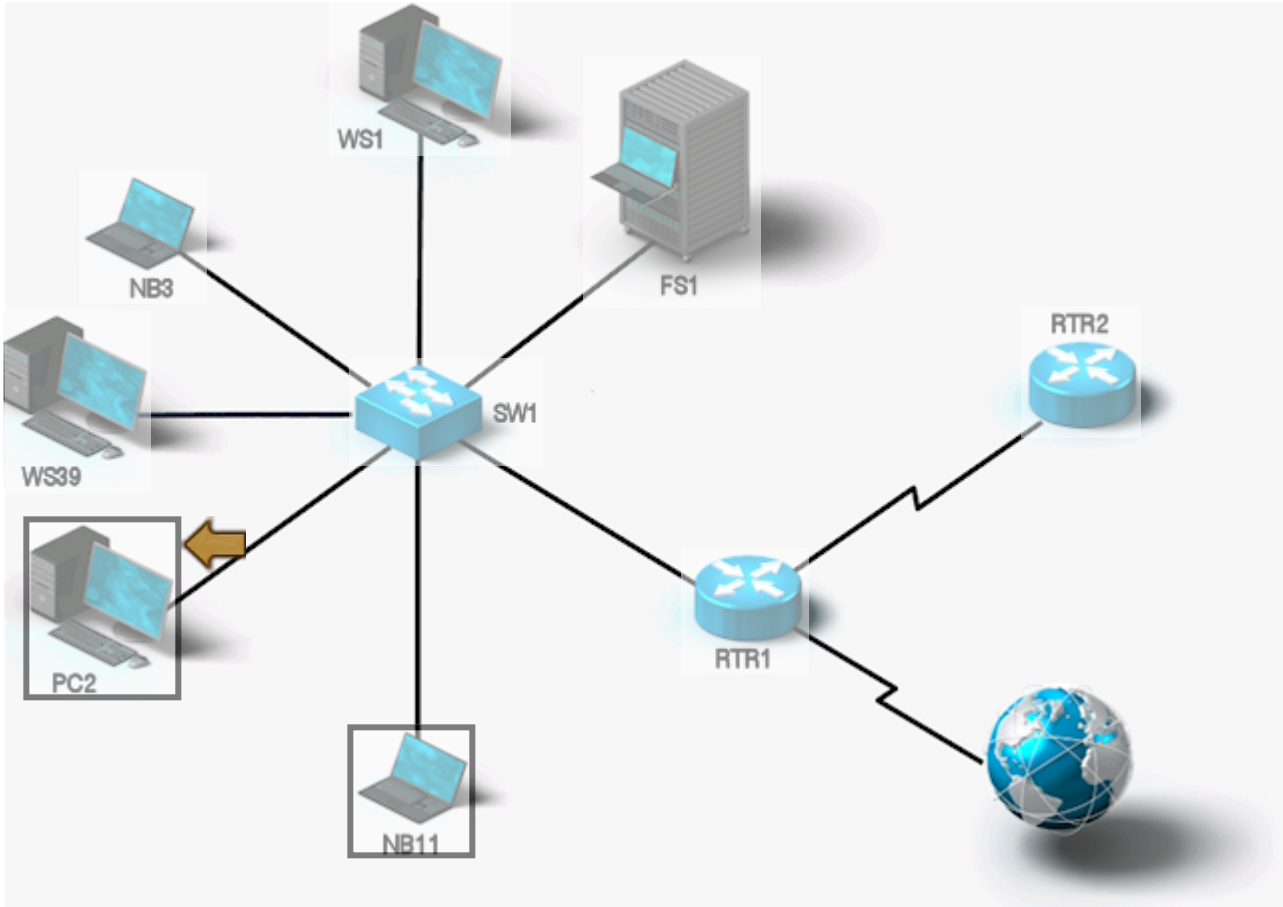
Two-post racks typically do not provide security features such as locks or alarms. Installing a humidifier in the data center would have no impact on the physical security of the systems within it.

References

LabSim for Network Pro, Section 15.5.
[netpro18v5_all_questions_en.exm RT NP15_5.7-12]

Question 13: Incorrect

Consider the network diagram shown below. Click on the item in the diagram that does not follow a standardized labeling scheme.



Explanation

By reviewing this diagram, you can see that the following labeling convention is used:

- Workstations = WSxx
- Notebooks = NBxx
- Servers = FSxx
- Switches = SWxx
- Routers = RTRxx

The workstation labeled **PC2** does not conform to this labeling standard.

References

LabSim for Network Pro, Section 15.5.
[netpro18v5_all_questions_en.exm RT NP15_5.7-10]