



# **Free Questions for CDCP by [braindumpscollection](#)**

**Shared by [Woodward](#) on [24-05-2024](#)**

**For More Free Questions and Preparation Resources**

**[Check the Links on Last Page](#)**

# Question 1

---

**Question Type:** MultipleChoice

---

Escape route signage should be placed where?

## Options:

---

- A- Only at emergency escape doors
- B- Only at the main entrance of the data centre building
- C- At every door providing a pathway
- D- At every door including riser doors, doors of storage closets etc.

## Answer:

---

C

## Explanation:

---

Escape route signage should be placed at every door providing a pathway to the exit or the assembly area, according to the CDCP Preparation Guide<sup>1</sup> and the EU Safety/Health Signs Directive<sup>2</sup>. Escape route signage is used to guide the occupants of the data centre

from wherever they are in the building, via a place of relative safety (the escape route), to the place of ultimate safety (the assembly area). Escape route signage should not be limited to only emergency escape doors or the main entrance of the data centre building, as these may not be accessible or visible from all locations. Escape route signage should also not include doors that do not lead to the exit or the assembly area, such as riser doors, doors of storage closets, or doors of other rooms, as these may confuse or mislead the occupants. Escape route signage should be placed at every door that provides a pathway to the exit or the assembly area, and should indicate the direction and distance of the escape route using pictograms, arrows, and words. Escape route signage should also be designed and installed in accordance with the relevant standards and codes, such as BS 5499 and ISO 7010.

1: CDCP Preparation Guide, page 24, section 2.4.3 2: EU Safety/Health Signs Directive3, page 1, section 1

## Question 2

---

**Question Type:** MultipleChoice

---

When having two non-synchronized power sources, the ATS / STS need to be of the type:

### Options:

---

**A-** Break before make.

**B-** Make before break.

- C- Both make before break or break before make can be used.
- D- Both an ATS and STS can never handle two non-synchronized sources.

### **Answer:**

---

A

### **Explanation:**

---

When having two non-synchronized power sources, the ATS / STS need to be of the type break before make, which means that the switch disconnects from one source before connecting to the other source. This prevents any short circuit, back feed, or phase mismatch that could occur if the two sources were connected simultaneously. Break before make switches are also known as open transition switches, because they create a brief interruption in the power supply during the switching process. This interruption is usually acceptable for most ICT equipment, as they have internal power supplies or batteries that can handle the transient. However, if the interruption is not acceptable, then the two power sources need to be synchronized before switching, which requires a make before break switch, also known as a closed transition switch. Make before break switches connect to the second source before disconnecting from the first source, which ensures a seamless transfer of power without any interruption. However, make before break switches require that the two sources have the same voltage, frequency, and phase, which can be achieved by using a synchronization module or a phase-locked loop.

1: CDCP Preparation Guide, page 17, section 2.3.1 2: STS in data centres - Borri3, page 1, section 1 4: Using Static Transfer Switches to Enhance Data Center ... - Donwil5, page 1, section 1 6: What is an Automatic Transfer Switch (Power)? | Ethan Banks7, page 1, section 1

## Question 3

---

**Question Type:** MultipleChoice

---

What is the minimum clearance space required below water sprinkler heads and nozzles of gas-based fire suppression systems?

### Options:

---

- A- 46 cm / 18 inches
- B- 64 cm / 25 inches
- C- 60 cm / 24 inches
- D- 120 cm / 47 inches

### Answer:

---

A

### Explanation:

---

The minimum clearance space required below water sprinkler heads and nozzles of gas-based fire suppression systems is 46 cm / 18 inches, according to the CDCP Preparation Guide<sup>1</sup> and OSHA regulation 29 CFR 1910.159 (10)<sup>2</sup>. This clearance space is necessary to

ensure that the sprinkler spray or gas discharge can reach the fire and cover the protected area effectively. Any material or obstruction below this clearance space can interfere with the sprinkler or gas distribution and reduce the fire suppression performance. Therefore, building owners and managers should ensure that all storage and objects in the data centre are kept below this clearance space, and that the clearance space is maintained at all times.

1: CDCP Preparation Guide, page 24, section 2.4.3 2: Clarification of OSHA regulation 29 CFR 1910.159(10), Sprinkler ...3, page 1, section 1

## Question 4

---

**Question Type:** MultipleChoice

---

Which design consideration should be implemented with an Inergen-based fire suppression system?

### Options:

---

- A- Install protective covers around the nozzles to avoid accidental gas dumps.
- B- Install the gas containers (tanks) close to the data centre.
- C- To use Inergen only for fires which are not related to electrical power.

**D-** Pressure relief valves are required in the room that needs protection.

**Answer:**

---

D

**Explanation:**

---

A design consideration that should be implemented with an Inergen-based fire suppression system is to install pressure relief valves in the room that needs protection. Inergen is a clean agent fire suppression system that uses a mixture of inert gases (nitrogen, argon, and carbon dioxide) to displace the oxygen in the room and extinguish the fire. However, when Inergen is released into the room, it creates a sudden increase in pressure, which can damage the walls, doors, windows, and ceilings of the room. To prevent this, pressure relief valves are required to vent the excess pressure to the outside and maintain a safe pressure level inside the room. Pressure relief valves should be designed and installed in accordance with the relevant standards and codes, such as NFPA 2001 and ISO 14520.

1: CDCP Preparation Guide, page 24, section 2.4.3 2: Data Center Fire Suppression Systems Bring Unexpected Risk3, page 1, section 1 4: Inergen from Fire Eater - CSC Datacenter5, page 1, section 1 6: Inergen Fire Suppression System7, page 1, section 1

## Question 5

---

**Question Type:** MultipleChoice

---

Which formula can be used to define risk?

**Options:**

---

- A- Risk = Time \* Quality
- B- Risk = Security \* Criminality
- C- Risk = Impact \* Probability
- D- Risk = Probability \* Cost

**Answer:**

---

C

**Explanation:**

---

According to the CDCP Preparation Guide<sup>1</sup>, risk can be defined as the product of impact and probability. Impact is the measure of the negative consequences or losses that may result from a risk event, such as downtime, data loss, or damage to the data centre. Probability is the measure of the likelihood or frequency of a risk event occurring, based on historical data, expert judgment, or statistical analysis. By multiplying impact and probability, risk can be quantified and compared, which helps in prioritizing and mitigating the risks. For example, a risk event that has a high impact but a low probability may have the same risk level as a risk event that has a low impact but a high probability.



1: CDCP Preparation Guide, page 25, section 2.5.1 2: Data center risk assessment: A decision-making tool3, page 1, section 1 4: Accounting for Risk in Your Data Center Design/Build Strategy5, page 1, section 1 6: A Novel Framework for Data Center Risk Assessment7, page 1, section 1

## Question 6

---

**Question Type:** MultipleChoice

---

The UPS vendor is offering the latest model of their UPS to you. The vendor indicates that the UPS is categorized as VFD class.

Is this UPS a fit for your mission-critical data centre?

### Options:

---

- A- Yes
- B- No
- C- Yes, but only if you oversize the battery bank with 10%.
- D- Yes, but only if they install it with a 12-pulse rectifier.

### Answer:

---

B

### **Explanation:**

---

A UPS (uninterruptible power supply) that is categorized as VFD class is not a fit for your mission-critical data centre, because it does not provide adequate protection against voltage and frequency variations. VFD stands for Voltage and Frequency Dependent, which means that the output voltage and frequency of the UPS depend on the input voltage and frequency. VFD UPSs are also known as offline, standby, or line-interactive UPSs. They typically switch to battery power only when the input power fails or goes beyond a certain threshold. However, this switching may cause a brief interruption or a transient in the output power, which can affect the performance and reliability of the ICT equipment. Moreover, VFD UPSs do not filter or regulate the input power, which means that they pass on any voltage or frequency fluctuations, harmonics, or noise to the output power. These power quality issues can also damage or degrade the ICT equipment and the data.

For your mission-critical data centre, you need a UPS that is categorized as VFI class, which stands for Voltage and Frequency Independent. VFI UPSs are also known as online, continuous, or double-conversion UPSs. They provide a constant and clean output power that is independent of the input power. VFI UPSs convert the input AC power to DC power, and then convert it back to AC power with the desired voltage and frequency. This double conversion process isolates the output power from the input power, and eliminates any power quality issues. VFI UPSs also have zero switching time, which means that they do not cause any interruption or transient in the output power when switching to battery power. VFI UPSs are designed to protect the ICT equipment and the data from any adverse effects of voltage and frequency variations, and to ensure the highest level of availability and reliability.

1: CDCP Preparation Guide, page 17, section 2.3.1 2: Understanding UPS Classification: Fuji Electric's Technical Guide<sup>3</sup>, page 1, section 1 4: Uninterruptible Power Supplies Key Product Criteria<sup>5</sup>, page 1, section 1 6: UPS Function: Reduced Input Voltage for VFDs - KEB<sup>7</sup>, page 1, section 1

## Question 7

---

**Question Type:** MultipleChoice

---

A fire extinguisher in the data centre is found which is classed as ABC.

Is this suitable?

**Options:**

---

**A-** Yes

**B-** Depends on the brand

**C-** Only for fires not related to electrical power

**D-** No

**Answer:**

---

D

**Explanation:**

---

A fire extinguisher in the data centre that is classed as ABC is not suitable, because it contains dry chemical powder that can damage the ICT equipment and the data. ABC fire extinguishers are designed to fight Class A, B, and C fires, which are fueled by combustible materials, flammable liquids or gases, and electrical equipment, respectively. However, the dry chemical powder can leave a corrosive residue on the ICT equipment, which can cause short circuits, data loss, or malfunction. Moreover, the dry chemical powder can be difficult to clean, especially from the small spaces and crevices of the ICT equipment. Therefore, ABC fire extinguishers are not recommended for data centres, and should be replaced with more suitable fire extinguishers, such as clean agent fire extinguishers, which use gas or liquid that does not leave any residue or harm the ICT equipment.

1: CDCP Preparation Guide, page 24, section 2.4.3 2: Data Center Fire Suppression: Overview & Protection Guide3, page 1, section 1 4: Fire Extinguisher Classes and Suitability5, page 1, section 1 6: SAFETY DATA SHEET Commercial ABC Dry Chemical (Fire Extinguishing Agent ...7, page 1,

## Question 8

---

**Question Type: MultipleChoice**

---

What is the main difference between an Environmental Monitoring System (EMS) and a Building Management System (BMS)?

**Options:**

---

- A-** An EMS provides local alarms. A BMS provides both local and remote alarms.
- B-** A BMS is only able to monitor dry contacts (on/off). An EMS can also monitor analog values.
- C-** A BMS only operates as a stand-alone system. An EMS can be configured as a redundant system.
- D-** An EMS monitors only. A BMS monitors and controls.

### **Answer:**

---

D

### **Explanation:**

---

The main difference between an Environmental Monitoring System (EMS) and a Building Management System (BMS) is that an EMS monitors only, while a BMS monitors and controls. An EMS is a system that collects and records data from various sensors and devices that measure environmental parameters, such as temperature, humidity, air quality, power, and water. An EMS provides alerts and reports based on the data, but it does not control or adjust the environmental conditions. A BMS is a system that integrates and manages various building systems, such as HVAC, lighting, security, fire, and access. A BMS not only monitors the data from these systems, but also controls and optimizes them to achieve the desired performance and efficiency. A BMS can also communicate with an EMS to receive data and provide feedback.

1: Environmental Monitoring Systems vs Building Management Systems<sup>2</sup>, page 1, section 1 3: Building Monitoring System vs Environmental Monitoring System<sup>4</sup>, page 1, section 1 5: BUILDING AND ENVIRONMENTAL MANAGEMENT SYSTEMS AND HOW THEY MEET GMP ...<sup>6</sup>, page 1, section 1 7: Environmental Monitoring System vs. Building Management System<sup>8</sup>, page 1, section 1

## Question 9

---

**Question Type:** MultipleChoice

---

Which of statements below is true?

### Options:

---

- A- Single-mode cabling can use both LED and laser as a light source.
- B- Single-mode cabling is more expensive than multi-mode cabling.
- C- Multi-mode cabling can cross longer distances.
- D- Multi-mode cabling is more expensive than single-mode cabling.

### Answer:

---

B

### Explanation:

---

Single-mode cabling and multi-mode cabling are two types of fiber optic cables that differ in their core diameter, wavelength, light source, bandwidth, distance, and cost. Single-mode cabling has a smaller core diameter and uses a laser as a light source, which

enables it to transmit data over longer distances and higher bandwidths. However, single-mode cabling is also more expensive than multi-mode cabling, because it requires more precise alignment and splicing, and more costly light sources and connectors. Multi-mode cabling has a larger core diameter and uses LEDs or VCSELs as a light source, which makes it cheaper and easier to install and maintain. However, multi-mode cabling also has a shorter distance and lower bandwidth than single-mode cabling, because it suffers from more modal dispersion and attenuation.

1: Data Center Cabling: Single Mode vs Multimode Fibers2, page 1, section 1 3: Single Mode vs Multimode Fiber Cable Guide4, page 1, section 1 5: Single-Mode vs. Multi-Mode Fiber Cables: Explained6, page 1, section 1 7: 2 Types of Fiber Optic Cable: Single Mode vs. Multimode Fiber8, page 1, section 1

## Question 10

---

**Question Type:** MultipleChoice

---

What should be a consideration when having casters (rollers/wheels) or feet under the rack?

### Options:

---

- A- The casters and feet should be larger to avoid a too heavy point load on the floor tile.
- B- Skirts at the bottom of the rack to avoid air flow between the hot and cold aisles.

**C-** Casters and feet should be of a soft material, for example rubber, to avoid damage to the raised floor tile.

**D-** Casters and feet should not be locked to ensure the racks are still able to be moved to another position.

### **Answer:**

---

A

### **Explanation:**

---

The casters and feet under the rack are used to support the weight of the rack and its equipment, and to allow the rack to be moved if needed. However, the casters and feet should also be designed to avoid putting too much pressure on the floor tile, especially if the data centre uses a raised floor system. A too heavy point load on the floor tile can cause the tile to crack, deform, or collapse, which can damage the rack, the equipment, and the underlying infrastructure. To prevent this, the casters and feet should be larger, so that they can distribute the weight over a larger area and reduce the point load. The casters and feet should also be compatible with the floor type and the load rating of the floor tile.

1: CDCP Preparation Guide, page 22, section 2.4.1.1 2: Raised Floor Design Considerations for Data Center3, page 1, section 1 4: [SOLVED] server rack on casters or feet5, page 1, section 1



**To Get Premium Files for CDCP Visit**

<https://www.p2pexams.com/products/cdcp>

**For More Free Questions Visit**

<https://www.p2pexams.com/exin/pdf/cdcp>

