Number: CDCS-001
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Exam Code: CDCS-001

Exam A

QUESTION 1
Which one of the following is a disadvantage of Water Cooled System?

A. All components are located inside the CRAC
B. Condenser water piping loops long distances
C. Usage of the building's condenser water is less expensive than chilled water
D. Introduces an additional source of liquid

Correct Answer: D
Section:
Explanation:
Water cooled systems introduce an additional source of liquid, which can be a potential source of contamination and damage to the IT equipment. Additionally, water cooled systems require more maintenance than air cooled systems and are more expensive to install due to the additional cost of the cooling tower, piping, and pumps.

QUESTION 2
Which mounted system is used to cool small IT environments?

A. Air Mounted System
B. Chilled Mounted System
C. Ceiling Mounted System
D. Floor Mounted System

Correct Answer: A
Section:
Explanation:
An air mounted system is often used to cool small IT environments. This type of cooling system is typically mounted on the wall or ceiling and works by blowing cool air into the room to lower the temperature. Air mounted systems are compact, easy to install and maintain, and can be a cost- effective solution for small spaces.

QUESTION 3
Which mounted system can use any of the five heat removal methodologies?

A. Air Mounted System
B. Chilled Mounted System
C. Ceiling Mounted System
D. Floor Mounted System

Correct Answer: C
Section:

QUESTION 4
Data Center Precision Cooling Systems maintain temperature within _____ degree(s) of their design set point.

A. 1

B. 2
C. 3
D. 5

Correct Answer: A
Section:

QUESTION 5
Whenever electrical power is being consumed in an IT room or data center. _____ is generated.

A. Heat
B. Static electricity
C. Condensation
D. Humidity

Correct Answer: A
Section:
Explanation:
Whenever electrical power is being consumed in an IT room or data center, heat is generated. This heat must be removed in order to maintain an optimal temperature for the equipment, and this is usually done through cooling systems such as air conditioning, air economization, liquid cooling, evaporative cooling, and immersion cooling.

QUESTION 6
_____ security means keeping unauthorized or ill-intentioned people out of places that they do not belong.

A. Logical
B. Topological
C. Network
D. Physical

Correct Answer: D
Section:
Explanation:
Physical security means keeping unauthorized or ill-intentioned people out of places that they do not belong. This can involve a variety of measures, such as locks, alarms, access control systems, cameras, and guards. Physical security is an important part of any security system, as it helps to protect valuable assets and personnel from theft, vandalism, and other malicious activities.

QUESTION 7
Which one of the following is an overall consideration for physical security?

A. Apply the technology
B. Apply the solution
C. Identify the problem
D. Define the problem

Correct Answer: D
Section:
Explanation:
Defining the problem is an important overall consideration for physical security. This process involves identifying and analyzing the threats and vulnerabilities that could potentially affect the security of the system, as well as

determining what steps need to be taken to mitigate these risks. This process should be done before any other steps are taken to ensure physical security, as it helps to ensure that the security measures are tailored to the specific needs of the system.

QUESTION 8
_____ measures the amount of electrical current flowing through a circuit during a specific time interval.

A. Ohm
B. Ampere
C. Volts
D. Watts

Correct Answer: B
Section:
Explanation:
An ampere (A) is the unit of measurement for electric current. It measures the amount of electrical current flowing through a circuit during a specific time interval. The ampere is named after André- Marie Ampère, a French mathematician and physicist who was one of the main discoverers of electromagnetism.
Ohm (O) is the unit of measurement for electric resistance, which is the opposition to the flow of an electric current through a circuit.
Volt (V) is the unit of measurement for electric potential difference, which is the energy required per unit charge to move a test charge between two places in a static electric field.
Watt (W) is the unit of measurement for power, which is the rate at which energy is used or generated in an electrical circuit.
Reference:
"Current" (https://www.britannica.com/topic/current-electricity)
"Electric current" (https://www.sciencedirect.com/topics/engineering/electric-current)
"Units of Measurement" (https://www.allaboutcircuits.com/textbook/direct-current/chpt-1/units-ofmeasurement/)

QUESTION 9
Which one of the following describes the amount of resistance electricity encounters?

A. Ohm
B. Ampere
C. Volts
D. Watts

Correct Answer: A
Section:
Explanation:
Ohm (O) describes the amount of resistance electricity encounters. It is one of the base units of the International System of Units (SI), and is defined as the amount of resistance that a conductor has when a force of one volt is applied across it. Ohms are used to measure the electrical resistance of a circuit, and can be used to determine the power of a circuit or the amount of current flowing through it.

QUESTION 10
Which one of the following controls the voltage produced at the output of the alternator?

A. Voltage Meter
B. Voltage Stabilizer
C. Voltage Regulator
D. Voltage Backup Device

Correct Answer: C
Section:

Explanation:
A voltage regulator controls the voltage produced at the output of the alternator. It's a device that maintains the output voltage of an alternating current (AC) power source within a safe range. The voltage regulator compares the actual output voltage to the desired voltage level and adjusts the voltage accordingly.
Voltage Meter, Voltage Stabilizer, and Voltage Backup Device are not devices that control the voltage produced at the output of the alternator. They are different types of equipment and have different functions.
A voltage meter is a device used to measure the voltage in an electrical circuit. A voltage stabilizer is an electronic device that maintains a constant voltage level. A voltage backup device is a device that provides temporary backup power in case of an electrical outage.

QUESTION 11
Every air distribution system has a _____ system and a _____ system

A. Supply, Release
B. Supply, Return
C. Supply, Reverse
D. Maintenance, Regulation

Correct Answer: B
Section:
Explanation:
Every air distribution system has a supply system, which delivers conditioned air to the space, and a return system, which collects the air from the space and returns it to the air handling unit. The return system is responsible for providing the necessary negative pressure in the space to ensure proper air circulation.

QUESTION 12
Which system in Air Distribution System takes the hot exhaust air from the IT equipment to the CRAC

A. Return system
B. Supply system
C. Maintenance system
D. Regulation system

Correct Answer: A
Section:
Explanation:
The return system in an air distribution system takes the hot exhaust air from the IT equipment and returns it to the Computer Room Air Conditioner (CRAC) unit. The CRAC unit cools the hot exhaust air and recirculates it back into the data center. The return system typically includes ducts, grills, and other components that allow the hot air to be efficiently and effectively returned to the CRAC unit.
Supply system is responsible for bringing in the cooled and filtered air from the CRAC unit to the data center.
Maintenance system and regulation system are not related to air distribution system in the data center.

QUESTION 13
How many approaches are there to remove unwanted heat from an IT environment?

A. Four
B. Five
C. Six
D. Seven

Correct Answer: B
Section:
Explanation:

There are five common approaches to removing unwanted heat from an IT environment:
Air conditioning: using mechanical cooling to remove heat from the air.
Air economization: using outside air to cool the IT environment when the temperature is cooler than the desired temperature inside the data center.
Liquid cooling: using a liquid coolant to absorb and remove heat from IT equipment.
Evaporative cooling: using water evaporation to cool the air.
Immersion cooling: submerging IT equipment in a liquid coolant to remove heat.

QUESTION 14
Which one of the following is an advantage of Air Cooled Self-Contained System?

A. Lowest installation cost
B. It doesn't requires ductwork and/or dropped ceiling
C. It has more heat removal capacity per unit
D. All components contain more than one unit

Correct Answer: B
Section:
Explanation:
Air cooled self-contained systems are highly efficient and do not require ductwork and/or dropped ceiling for installation. This makes them a great choice for locations where installation costs are a major factor, such as in residential applications, or in places with limited space. Additionally, air cooled self-contained systems have more heat removal capacity per unit compared to water cooled systems, making them more cost-effective in the long run.

QUESTION 15
Which one of the following is an advantage of Glycol Cooled System?

A. No additional cost is required
B. No maintenance of glycol
C. Glycol pipes can run long distances and can service several CRAC units
D. Can be used in big data centers

Correct Answer: C
Section:
Explanation:
Glycol cooled systems are advantageous because they are efficient and can service large data centers with multiple racks. Furthermore, glycol pipes can run long distances, allowing a single system to service several CRAC units. This eliminates the need for multiple systems, resulting in cost savings and reduced maintenance.

QUESTION 16
A typical data center load would consist of _____ (Choose 3)

A. Cooling equipment
B. Networking equipment
C. Power generator
D. Software
E. Computers

Correct Answer: A, C, E
Section: