

A close-up, high-contrast photograph of a person's face, focusing on their eyes and nose. They are wearing safety glasses. The reflection on the lenses of the glasses shows a glowing blue and red circuit board, likely a microchip or processor, which is the central theme of the advertisement. The background is dark, making the glowing elements stand out.

Test Your Knowledge

# Building Sustainability in Your Cloud and Data Center

Begin



## Question 1

The data center industry is expected to consume what percentage of the world's energy supply by 2025?

- a. 10%
- b. 15%
- c. 20%



## Question 1

**“10%” is incorrect!**

The data center industry is expected to consume **20%** of the world's energy supply by 2025.\*





## Question 1

**“15%” is incorrect!**

The data center industry is expected to consume **20%** of the world's energy supply by 2025.\*

## Question 1



# Correct!

The data center industry is expected to consume **20%** of the world's energy supply by 2025.\*



## Question 2

Servers can consume up to what percentage of total power consumption of a data center?

- a. 40%
- b. 45%
- c. 50%





## Question 2

# Correct!

When you refresh and consolidate Intel® Xeon® processor-based servers with 4th Gen Intel® Xeon® processors you can reduce your power use and CO2 emissions **up to 40%.\***



## Question 2

# “45%” is Incorrect!

When you refresh and consolidate Intel® Xeon® processor-based servers with 4th Gen Intel® Xeon® processors you can reduce your power use and CO2 emissions **up to 40%.**\*





## Question 2

# “50%” is Incorrect!

When you refresh and consolidate Intel® Xeon® processor-based servers with 4th Gen Intel® Xeon® processors you can reduce your power use and CO2 emissions **up to 40%.\***



### Question 3

When you refresh and consolidate Intel® Xeon® processor-based servers with 4th Gen Intel® Xeon® processors you can reduce your power use and CO<sub>2</sub> emissions up to:

- a. 25%
- b. 40%
- c. 60%

### Question 3



# “25%” is incorrect!

You can reduce your power use and CO<sub>2</sub> emissions **up to 60%** when you refresh and consolidate Intel® Xeon® processor-based servers with 4th Gen Intel® Xeon® processors.\*



### Question 3



# “40%” is incorrect!

You can reduce your power use and CO<sub>2</sub> emissions **up to 60%** when you refresh and consolidate Intel® Xeon® processor-based servers with 4th Gen Intel® Xeon® processors.\*

### Question 3



# Correct!

You can reduce your power use and CO<sub>2</sub> emissions **up to 60%** when you refresh and consolidate Intel® Xeon® processor-based servers with 4th Gen Intel® Xeon® processors.\*



#### Question 4

How much energy can you save by turning servers off during off-peak hours when traffic has slowed down?

- a. Approximately 5–10%
- b. Approximately 10–15%
- c. Approximately 15–20%





## Question 4

**“Approximately 5–10%” is Incorrect!**

You can save approximately **10–15%** in energy usage by turning servers off during off-peak hours when traffic has slowed down.\*



## Question 4

# Correct!

You can save approximately **10–15%** in energy usage by turning servers off during off-peak hours when traffic has slowed down.\*





## Question 4

**“Approximately 15–20%” is Incorrect!**

You can save approximately **10–15%** in energy usage by turning servers off during off-peak hours when traffic has slowed down.\*





### Question 5

Storage can consume up to what percentage of a data center's overall energy use?

- a. 8%
- b. 12%
- c. 18%



## Question 5

**“8%” is incorrect!**

Storage can consume **up to 18%** of an overall data center’s energy use.\*

## Question 5



# “12%” is incorrect!

Storage can consume **up to 18%** of an overall data center’s energy use.\*



## Question 5



# Correct!

Storage can consume **up to 18%** of an overall data center's energy use.\*



### Question 6

Data center cooling can consume up to what percent of a data center's total power?

- a. 20%
- b. 30%
- c. 40%

## Question 6



# “20%” is incorrect!

Data center cooling can consume **up to 40%** of a data center’s total power.\*





## Question 6

**“30%” is incorrect!**

Data center cooling can consume **up to 40%** of a data center's total power.\*

## Question 6



# Correct!

Data center cooling can consume **up to 40%** of a data center's total power.\*



### Question 7

Implementing carbon-aware scheduling of workloads and shifting delay tolerant workloads to weekends can reduce carbon emissions by what percentage?

- a. 20%
- b. 40%
- c. 50%





## Question 7

# Correct!

Carbon emissions can be reduced **by 20%** by implementing carbon-aware scheduling of workloads and shifting delay tolerant workloads to weekends.\*



## Question 7

**“40%” is incorrect!**

Carbon emissions can be reduced **by 20%** by implementing carbon-aware scheduling of workloads and shifting delay tolerant workloads to weekends.\*



## Question 7

# “50%” is incorrect!

Carbon emissions can be reduced **by 20%** by implementing carbon-aware scheduling of workloads and shifting delay tolerant workloads to weekends.\*





### Question 8

Approximately how many KW hours can you save when you run Generative AI Large Language Models on 4th Gen Intel® Xeon® processors with the built-in accelerator Intel® Advanced Matrix Extensions (Intel® AMX) running a BERT-large workload, when compared to 4th Gen AMD EPYC?

- a. ~224,000 kWH/per year
- b. ~424,000 kWH/per year
- c. ~754,000 kWH/per year

## Question 8



“~224,000 kWh/per year” is incorrect!

You can save approximately **424,000 KW hours per year\*** when you run Generative AI Large Language Models on 4th Gen Intel® Xeon® processors with the built-in accelerator Intel® AMX running a BERT-large workload, when compared to 4th Gen AMD EPYC.

## Question 8



# Correct!

You can save approximately **424,000 KW hours per year\*** when you run Generative AI Large Language Models on 4th Gen Intel® Xeon® processors with the built-in accelerator Intel® AMX running a BERT-large workload, when compared to 4th Gen AMD EPYC.



## Question 8



**“~754,000 kWh/per year” is incorrect!**

You can save approximately **424,000 KW hours per year\*** when you run Generative AI Large Language Models on 4th Gen Intel® Xeon® processors with the built-in accelerator Intel® AMX running a BERT-large workload, when compared to 4th Gen AMD EPYC.

# Thank you



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