

Data Center University™ Associate Certification Examination Objectives

Introduction

The skills and knowledge measured by this examination have been validated by Subject Matter Experts from around the globe.

Objective and Outcome of Certification

The Data Center University™ Associate Certification indicates a foundational knowledge of the critical physical infrastructure elements of a Data Center. Associates demonstrate a base level knowledge proficiency in the categories of: cooling, power, racks, cabling, fire protection, management and physical security. Associates possess the basic knowledge necessary to participate on teams that design or upgrade the NCPI layer of the Data Center.

This examination blueprint includes test objectives and example content for the Associate level exam. Example topics and content are included to clarify the test objectives but are not comprehensive listings for the content of this examination.

This table below lists the domains measured by this examination and the approximate extent to which they are represented on the exam.

Domain	% Of Examination
1.0 Power	25%
2.0 Cooling	25%
3.0 Racks	8%
4.0 Cabling	7%
5.0 Fire Protection	7%
6.0 Management	14%
7.0 Physical Security	14%
Total	100%

Response limits: The examinee selects from four (4) or more response options, the options) that best completes the statement or answers the questions. Distractors or wrong answers are response options that examinees with incomplete knowledge or skill would likely choose, but are generally plausible responses fitting into the content area.

Test items formats used in this examination are:

Multiple choice: The examinee selects one option that best answers the question or completes a statement. The option can be embedded in a graphic where the examinee “points and clicks” on their selection choice to complete the test item.

Multiple response: The examinee selects more than one option that best answers the question or completes a statement.

Drag and drop items: A drag and drop item is an item that requires the candidate to drag a graphic or text box to a correct destination.

Domain Definitions

Domain 1.0 Power

- 1.1 Identify basic power terminology and concepts
- 1.2 Understand the function / role of UPSs in the data center (including Standby, Line Interactive, Standby-Ferro, Double Conversion On-Line, and Delta Conversion On-Line)
- 1.3 Recognize the function / role of power distribution
- 1.4 Understand the fundamental principles of generators and their role in mission critical applications
- 1.5 Describe the role and methodology of power redundancy in the data center
- 1.6 Recognize power quality issues

Domain 2.0 Cooling

- 2.1 Identify basic cooling terminology and concepts
- 2.2 Understand data center cooling architectures (rack, row, room)
- 2.3 Describe air distribution techniques
- 2.4 Determine cooling strategies in the data center
- 2.5 Describe the role of humidity in the data center and humidity management techniques

Domain 3.0 Racks

- 3.1 Identify common rack types and standards in a data center
- 3.2 Identify and explain common rack system challenges (cooling and layout)

Domain 4.0 Cabling

- 4.1 Identify the fundamental concepts and terminology for data center cabling

Domain 5.0 Fire Protection

- 5.1 Summarize the main concepts of data center fire protection system
- 5.2 Recognize the different methods of fire detection, fire communication and fire suppression

Domain 6.0 Management

- 6.1 Identify Network Critical Physical Infrastructure (NCPI) challenges for incident, availability, capacity, and change management
- 6.2 Summarize NCPI management strategies for Enterprise Management Systems (EMS) and Building Management Systems (BMS)
- 6.3 Explain what drives business value for NCPI
- 6.4 Comprehend fundamental concepts of availability

Domain 7.0 Physical Security

- 7.1 Identify and explain common physical security principles, methods and devices in a data center