



Associate - Information Storage and  
Management Version 4.0

<b>Related Certificate</b>	<b>Associate - Information Storage and Management</b>
<b>Course ID</b>	<b>ISM V4</b>
<b>Exam Code</b>	<b>DEA-1TT4</b>
<b>Audience</b>	<b>IT Professionals</b>
<b>Hours</b>	<b>40 Hrs.</b>

## Overview:

A comprehensive understanding of various storage infrastructure components in traditional, virtualized, and software-defined data center environments.

## Objectives:

- Strong knowledge of storage-related technologies in an increasingly complex IT environment, which is fast changing with the adoption of third platform technologies (cloud, Big Data, social, and mobile technologies).
- Advanced concepts, technologies, and processes of managing and securing storage.

## Outlines:

### Lesson 1: Modern Data Center Infrastructure

- Describe the data classification, elements of a data center, key characteristics of a data center, and key technologies driving digital transformation
- Explain the cloud characteristics, cloud service models, and cloud deployment models
- Explain the key characteristics of big data, components of a big data analytics solution, Internet of Things (IoT), machine learning, and artificial intelligence (AI)
- Describe the building blocks of a modern data center
- Describe a compute system, storage, connectivity in a data center, application, and options to build a modern data center

### Lesson 2: Storage Networking Technologies

- Describe Storage Area Network (SAN), FC architecture, FC topologies, zoning, and virtualization in FC SAN
- Describe TCP/IP, IP SAN, iSCSI protocol, components, connectivity, addressing, discovery domains, and VLAN
- Explain the components and connectivities of FCIP and FCoE

### Lesson 3: Storage Systems

- Explain the components of an intelligent storage system, RAID, erasure coding, data access methods, scale-up and scale-out architectures

- Explain the components of block-based storage system, storage provisioning, and storage tiering mechanisms
- Explain the NAS components and architecture, NAS file sharing methods, and file-level virtualization and tiering
- Describe object-based storage device components, functions, operations, and unified storage architecture
- Describe software-defined storage attributes, architecture, functions of the control plane, software-defined extensibility, and software-defined networking functionalities

## **Lesson 4: Backup, Archive, and Replication**

- Describe the information availability measurements and key fault tolerance techniques
- Explain backup granularity, architecture, backup targets, operations, and backup methods
- Describe data deduplication and data archiving solutions architecture
- Describe replication uses, and replication and migration techniques

## **Lesson 5: Security and Management**

- Describe the information security goals, terminologies, various security domains, and threats to a storage infrastructure
- Explain key security controls to protect the storage infrastructure
- Describe the storage infrastructure management functions and processes

[For more details visit course page](#)

NE

## Contacts:

### Address:

1 Zaker Hussien st, 7<sup>th</sup> area, Nasr City, Cairo, Egypt

### Phone Numbers:

Landline: +202 26709916 / +202 26709961

Fax: +202 26709957

General: 002 0164010004

### E-mail:

[info@herotec.net](mailto:info@herotec.net)

[Corporate@herotec.net](mailto:Corporate@herotec.net)



[www.herotec.net](http://www.herotec.net)