



Ministry of cooperatives
Labour and Social Welfare



Iran Technical and Vocational
Training Organization

Deputy of training
Plan and curriculums office

Competency Training standard

Title

**NetApp Certified Data Administrator(NCDA)
NS0-155**

Occupational group

INFORMATION TECHNOLOGY (IT)

International code

2523-53-156-1

Date of Standard Compilation: 2016/03/05

Control of board on content compilation and accreditation: Plan and curriculums office
National code: 2523-53-156-1

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Revision Process:

- **Scientific content**
- **According to market**
- **Equipment**
- **Tools**

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Definitions:

Job standard:

The characteristics ' required competencies and abilities for Efficient Performance in work environment is called "the Job standard", and sometimes “The Occupational standard”

Training standard:

The Training Map for achieving the Job’s subset Competencies.

Job title:

Is a set of Tasks and Abilities which is expected from an employed person in the defined level

Job description:

A statement covering the most important elements of a job, namely the position or title of the job, the duties, job’s relation with other jobs in a occupational field, the responsibilities, workplace conditions and required performance standards.

Course duration:

The minimum of time which is required to achieve the training objects.

Admission requirements:

The minimum of competencies and abilities which are obligatory for a potential admission.

Evaluation:

The process of collecting evidence and judgment about whether a competency is achieved or not.

Include: written examination, practical examination

Required Qualifications for Trainers:

The minimum of Trainer’s technical and vocational abilities which the trainer is required to have.

Competency:

The ability of efficient performing a duty in a variety of workplaces conditions

Knowledge:

The minimum set of facts and mental capacities which is necessary for achieving a competency. This can include science, (Mathematics, physics, chemistry or biology), technology or technical.

Skill:

The minimum coordination between mind and body for achieving an ability or competency. It normally applied to practical skills.

Attitude:

A set of emotional behaviors required for achieving a competency and can have non-technical skills and occupational ethics.

Safety:

The cases which doing or not doing something can cause harm or accident

Environmental Consideration:

A set of consideration about the act which should be done to minimize the environmental damage or pollution.

Competency Title:**NetApp Certified Data Administrator(NCDA)****Competency Description:**

NetApp Certified Data Administrators have proven skills in performing in-depth support, administrative functions, and performance management for NetApp® data storage controllers running the Data ONTAP® operating system in NFS and Windows® (CIFS) multiprotocol environments. They are able to implement high-availability controller configurations. They also have detailed knowledge of SnapMirror®, SnapRestore®, and SnapVault® technologies, which they use to manage and protect mission-critical data.

Admission Requirements:

minimum degree of education: Post first year of high school

minimum physical and mental ability:-

Prerequisite skills: Comptia Network+ Certification & Microsoft MCSA

Course duration:

Course duration: 60 hours

-Theoretical :20 Hours

-Practical :40 Hours

-Apprenticeship:... Hours

-Project:... Hours

Evaluation :(%)

Exam Time for Native English speakers	90 minutes
Exam Time for Non-native English speakers	120 minutes
Number of questions	55-65
Exam Number	NS0-155
Associate Certification	NetApp Certified Data Administrator

IRANTVTO Evaluation :(%)

Written Examination:25%

Practical Examination:65%

Ethics:10%

Required Qualifications for Trainers:

Computer or IT or ART related Bachelor with 2 years' experience

Competency Training Standard

Competencies

	Title
1	SAN introduction
2	SMB (CIFS) Administration
3	NetApp Mangement Pack
4	NFS Administration
5	Aggregate Reallocation
6	Deduplication
7	Large Aggregates
8	High Availability
9	Data Protection Administration

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Training standard
Contents analysis form

Title: SAN introduction	time			
	theoretical	practical	total	
	Determined by the instructor			
Knowledge ,skill ,attitude ,safety, Environmental Consideration				Equipments ,tools, materials ,books
Knowledge and Skill: - Overview - Administration - Performance and Troubleshooting - Field Experience - FCP Components and Configuration - ISCSI Components and Configuration	Determined by the instructor			From NetApp
Attitude: Speed and accuracy in doing the right thing				
Health & Safety: Compliance with safety protection in the workplace				
Environmental Consideration: Compliance with environmental protection				

Title: SMB (CIFS) Administration	time			
	theoretical	practical	total	
	Determined by the instructor			
Knowledge ,skill ,attitude ,safety, Environmental Consideration				Equipments ,tools, materials ,books
Knowledge and Skill: <ul style="list-style-type: none"> - Define and describe CIFS protocol versions - Describe configuration in Data ONTAP operating in 7-Mode - Describe configuration in clustered Data ONTAP - Use the Data ONTAP PowerShell Toolkit to write PowerShell scripts - Configure home directories with the Data ONTAP operating system - Work with symbolic links and wide links - Configure Dynamic Access Control - Review performance management for CIFS environments - Detail troubleshooting techniques for NetApp storage systems and clients who use the CIFS protocol 	Determined by the instructor			From NetApp
Attitude: Speed and accuracy in doing the right thing				
Health & Safety: Compliance with safety protection in the workplace				
Environmental Consideration: Compliance with environmental protection				

Title: NetApp Mangement Pack	time			
	theoretical	practical	total	
	Determined by the instructor			
Knowledge ,skill ,attitude ,safety, Environmental Consideration				Equipments ,tools, materials ,books
Knowledge and Skill: - Qtree Security Style	Determined by the instructor			From NetApp
Attitude: Speed and accuracy in doing the right thing				
Health & Safety: Compliance with safety protection in the workplace				
Environmental Consideration: Compliance with environmental protection				

Title: NFS Administration	time			
	theoretical	practical	total	
	Determined by the instructor			
Knowledge ,skill ,attitude ,safety, Environmental Consideration				Equipments ,tools, materials ,books
Knowledge and Skill: - Configure Data ONTAP 8.2 operating in 7-Mode for NFSv3 and NFSv4 - Configure clustered Data ONTAP 8.3 for NFSv3, NFSv4, and NFSv4.1, including parallel NFS (pNFS) - Review performance management and troubleshooting for NetApp storage systems and clients	Determined by the instructor			From NetApp
Attitude: Speed and accuracy in doing the right thing				
Health & Safety: Compliance with safety protection in the workplace				
Environmental Consideration: Compliance with environmental protection				

Training standard

Contents analysis form

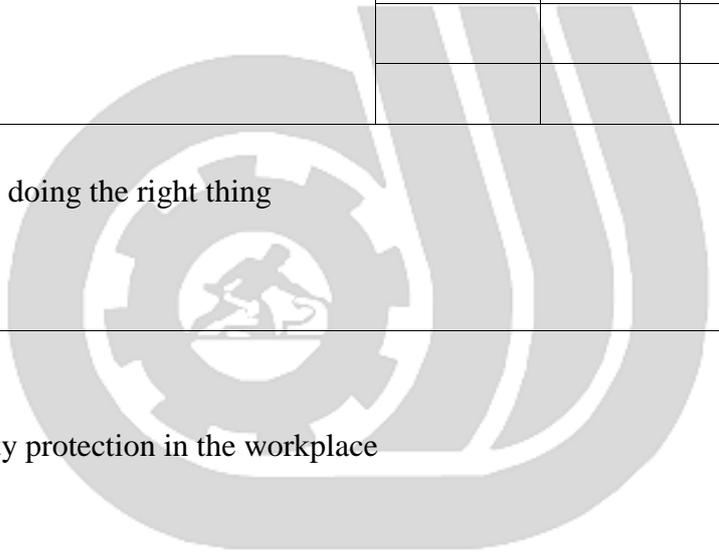
Title: Aggregate Reallocation	time			
	theoretical	practical	total	
	Determined by the instructor			
Knowledge ,skill ,attitude ,safety, Environmental Consideration				Equipments ,tools, materials ,books
Knowledge and Skill: - Aggregate Reallocation	Determined by the instructor			From NetApp
Attitude: Speed and accuracy in doing the right thing				
Health & Safety: Compliance with safety protection in the workplace				
Environmental Consideration: Compliance with environmental protection				

Training standard
 Contents analysis form

Title: Deduplication	time			
	theoretical	practical	total	
	Determined by the instructor			
Knowledge ,skill ,attitude ,safety, Environmental Consideration				Equipments ,tools, materials ,books
Knowledge and Skill: - NetApp Deduplication	Determined by the instructor			From NetApp
Attitude: Speed and accuracy in doing the right thing				
Health & Safety: Compliance with safety protection in the workplace				
Environmental Consideration: Compliance with environmental protection				

Training standard
 Contents analysis form

Title: Large Aggregates	time			
	theoretical	practical	total	
	Determined by the instructor			
Knowledge ,skill ,attitude ,safety, Environmental Consideration				Equipments ,tools, materials ,books
Knowledge and Skill: - Large Aggregates – Features and Configuration	Determined by the instructor			From NetApp
Attitude: Speed and accuracy in doing the right thing				
Health & Safety: Compliance with safety protection in the workplace				
Environmental Consideration: Compliance with environmental protection				



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Contents analysis form

Title: High Availability	time			
	theoretical	practical	total	
	Determined by the instructor			
Knowledge ,skill ,attitude ,safety, Environmental Consideration				Equipments ,tools, materials ,books
Knowledge and Skill: - Describe the high-availability features and functions of NetApp Data ONTAP® 7-Mode - Plan a high-availability pair configuration - Cable and configure a high-availability pair - Complete a nondisruptive upgrade - MetroCluster™ Software - Performance	Determined by the instructor			From NetApp
Attitude: Speed and accuracy in doing the right thing				
Health & Safety: Compliance with safety protection in the workplace				
Environmental Consideration: Compliance with environmental protection				

Training standard

Contents analysis form

Title: Data Protection Administration	time			
	theoretical	practical	total	
	Determined by the instructor			
Knowledge ,skill ,attitude ,safety, Environmental Consideration				Equipments ,tools, materials ,books
Knowledge and Skill: -Describe NetApp protection technology and the NetApp integrated data protection solutions that are supported in clustered Data ONTAP 8.3 - Manage local Snapshot copies - Manage clustered Data ONTAP 8.3 SnapMirror replication - Manage SnapVault replication operations - Manage NDMP protocol configuration - Use the OnCommand System Manager protection and provisioning capability to set up and manage backup and restore operations - SnapLock® Compliance Software - Protection Manager	Determined by the instructor			From NetApp
Attitude: Speed and accuracy in doing the right thing				
Health & Safety: Compliance with safety protection in the workplace				
Environmental Consideration: Compliance with environmental protection				