TestOut

TestOut Server Pro 2016: Install and Storage
English 4.0.x

TEXTBOOK MAPPING

MCSA Guide to Installation, Storage, and Compute with Windows Server 2016

Powered by LABSIM

Objective Mapping: MS 70-740 Objective to LabSim Section to Textbook Chapter		TestOut Server Pro 2016: Install & Storage	MCSA Guide to Installation, Storage, and Compute with Windows Server 2016
		ISBN#: 978-1-935080-65-7	ISBN#: 978-1-337-40066-4
#	**Objective**	**Author: TestOut**	**Author: Greg Tomsho**
100	**Install Windows Servers in host and compute environments (10–15%)**	**Sections**	**Chapters**
101	**Install, upgrade, and migrate servers and workloads** This objective may include but is not limited to: - Determine Windows Server 2016 installation requirements. Install Windows Server 2016. - Install Windows Server 2016 features and roles. Install and configure Windows Server Core. - Perform upgrades and migrations of servers and core workloads. Determine the appropriate activation model for server installation.	2.1, 2.2, 2.3	2, 3
102	**Install and configure Nano Server** This objective may include but is not limited to: - Determine appropriate usage scenarios and requirements for Nano Server. Install Nano Server. - Implement Roles and Features on Nano Server. Manage and configure Nano Server. - Manage Nano Server remotely using Windows PowerShell.	3.6	2, 12
103	**Create, manage, and maintain images for deployment** This objective may include but is not limited to: - Plan for Windows Server virtualization. - Assess virtualization workloads using the MAP Toolkit. Update images with patches, hotfixes, and drivers. - Install roles and features in offline images.	3.5	3, 6, 7
200	**Implement storage solutions (10–15%)**	**Sections**	**Chapters**
201	**Configure disks and volumes** This objective may include but is not limited to: - Configure GUID partition table (GPT) disks. - Create VHD and VHDX files using Server Manager or Windows PowerShell. Mount virtual hard disks. - Determine when to use NTFS and ReFS file systems. Configure NFS and SMB shares using Server Manager. - Configure SMB share and session settings using Windows PowerShell. Configure file and folder permissions.	5.1, 5.2 10.1, 10.2 10.3, 10.4, 10.5	4
202	**Implement server storage** This objective may include but is not limited to: - Configure storage pools. - Implement simple, mirror, and parity storage layout options for disks or enclosures. Expand storage pools. - Configure Tiered Storage. Configure iSCSI target and initiator. Configure iSNS.	5.3, 5.4	5
203	**Implement data deduplication** This objective may include but is not limited to: - Implement and configure deduplication. - Determine appropriate usage scenarios for deduplication. Monitor deduplication. - Implement a backup and restore solution with deduplication.	5.5	5
300	**Implement Hyper-V (20–25%)**	**Sections**	**Chapters**
301	**Install and configure Hyper-V** This objective may include but is not limited to: - Determine hardware and compatibility requirements for installing Hyper-V. Install Hyper-V. - Install management tools. - Configure virtual machines using Windows PowerShell Direct. - Implement nested virtualization.	6.1, 6.2	6, 7
302	**Configure virtual machine (VM) settings** This objective may include but is not limited to: - Add or remove memory in a running VM. Configure dynamic memory. - Configure non-uniform memory access (NUMA) support. Create Linux and FreeBSD VMs. - Export and import VMs. - Implement discrete device assignment. - Convert VMs from previous versions of Hyper-V to Windows Server 2016 Hyper-V.	6.2, 6.6	6, 7
303	**Configure Hyper-V storage** This objective may include but is not limited to: - Create VHDs and VHDX files using Hyper-V Manager. Create shared VHDX files. - Configure differencing disks. Modify virtual hard disks. - Configure pass-through disks. Manage checkpoints. - Implement a virtual Fibre Channel adapter.	6.3, 6.4, 6.5	6,7
304	**Configure Hyper-V networking** This objective may include but is not limited to: - Add and remove virtual network interface cards. Configure Hyper-V virtual switches. - Optimize network performance. Configure MAC addresses. - Configure network isolation. Configure NIC teaming in VMs. Configure Bandwidth Management.	6.4, 6.5	7
400	**Implement Windows containers (5–10%)**	**Sections**	**Chapters**
401	**Deploy Windows containers** This objective may include but is not limited to: - Determine installation requirements and appropriate scenarios for Windows containers. Install and configure Windows Server container host. - Install Docker on Windows Server. Configure Docker daemon start-up options. Create Windows Server containers. - Create Hyper-V containers.	14.1, 14.2, 14.3	12
402	**Manage Windows containers** This objective may include but is not limited to: - Manage Windows containers using the Docker daemon. Manage container networking. - Manage container data volumes. - Create new container images using Dockerfile. Manage container images using DockerHub. Manage container images using Microsoft Azure.	14.3, 14.4	12

500	Implement high availability (30–35%)	Sections	Chapters
501	**Implement high availability and disaster recovery options in Hyper-V** This objective may include but is not limited to: - Implement Hyper-V replica. Implement live migration. - Implement shared nothing live migration. Implement storage migration.	15.6	9
502	**Implement failover clustering** This objective may include but is not limited to: - Configure cluster quorum settings. Configure cluster networking. - Restore single node or cluster configuration. Configure cluster storage. - Configure clusters without network names. Implement scale-out file server. - Implement storage replica.	15.3, 15.4 15.5, 15.8	8, 9
503	**Implement storage spaces direct** This objective may include but is not limited to: - Determine scenario requirements for implementing storage spaces direct. Enable storage spaces direct using Windows PowerShell.	15.9	9
504	**Manage failover clustering** This objective may include but is not limited to: - Configure role-specific settings. Configure VM monitoring. - Configure failover and preference settings. Implement stretch and site-aware failover clusters. Enable and configure node fairness.	15.4, 15.5, 15.7, 15.8	8, 9
505	**Manage VM movement in clustered nodes** This objective may include but is not limited to: - Perform a live migration. Perform a quick migration. Perform a storage migration. Import, export, and copy VMs.	15.6	9
506	**Implement network load balancing (NLB)** This objective may include but is not limited to: - Install NLB nodes. - Configure NLB prerequisites. Configure affinity and port rules. Configure cluster operation mode. Upgrade an NLB cluster.	15.1, 15.2	8
600	**Maintain and monitor server environments (10–15%)**	**Sections**	**Chapters**
601	**Maintain server installations** This objective may include but is not limited to: - Implement Windows Server update services (WSUS) solutions. Configure WSUS groups. - Implement an antimalware solution with Windows Defender. Integrate Windows Defender with WSUS. - Perform backup and restore operations using Windows Server Backup.	12.1, 12.2 12.3, 12.4	10, 11
602	**Monitor server installations** This objective may include but is not limited to: - Monitor workloads using Performance Monitor. Configure data collector sets. - Determine appropriate CPU, memory, disk, and networking counters for storage and compute workloads. - Configure alerts. - Monitor workloads using Resource Monitor.	12.5	11