**VMware VCP-DCV Syllabus:**

| **Section** | **Objectives** |
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| Architectures and Technologies | - Identify the pre-requisites and components for a vSphere implementation - Describe vCenter Server topology - Identify and differentiate storage access protocols for vSphere (NFS, iSCSI, SAN, etc.)   * Describe storage datastore types for vSphere * Explain the importance of advanced storage configuration (vSphere Storage APIs for Storage Awareness (VASA), vSphere Storage APIs Array Integration (VAAI), etc.) * Describe storage policies * Describe basic storage concepts in K8s, vSAN and vSphere Virtual Volumes (vVols)   - Differentiate between vSphere Network I/O Control (NIOC) and vSphere Storage I/O Control (SIOC) - Describe instant clone architecture and use cases - Describe ESXi cluster concepts   * Describe Distributed Resource Scheduler (DRS) * Describe vSphere Enhanced vMotion Compatibility (EVC) * Describe how Distributed Resource Scheduler (DRS) scores virtual machines * Describe vSphere High Availability * Describe datastore clusters   - Identify vSphere distributed switch and vSphere standard switch capabilities   * Describe VMkernel networking * Manage networking on multiple hosts with vSphere distributed switch * Describe networking policies * Manage Network I/O Control (NIOC) on a vSphere distributed switch   - Describe vSphere Lifecycle Manager concepts (baselines, cluster images, etc.) - Describe the basics of vSAN as primary storage   * Identify basic vSAN requirements(networking, disk count + type)   - Describe the vSphere Trust Authority architecture - Explain Software Guard Extensions (SGX) |
| VMware Products and Solutions | - Describe the role of vSphere in the software-defined data center (SDDC) - Identify use cases for vCloud Foundation - Identify migration options - Identify DR use cases - Describe vSphere integration with VMware Skyline |
| Planning and Designing |  |
| Installing, Configuring, and Setup | - Describe single sign-on (SSO) deployment topology   * Configure a single sign-on (SSO) domain * Join an existing single sign-on (SSO) domain   - Configure VSS advanced virtual networking options - Set up identity sources   * Configure Identity Federation * Configure Lightweight Directory Access Protocol (LDAP) integration * Configure Active Directory integration   - Deploy and configure vCenter Server Appliance - Create and configure VMware High Availability and advanced options (Admission Control, Proactive High Availability, etc.) - Deploy and configure vCenter Server High Availability - Set up content library - Configure vCenter Server file-based backup - Analyze basic log output from vSphere products - Configure vSphere Trust Authority - Configure vSphere certificates   * Describe Enterprise PKIs role for SSL certificates   - Configure vSphere Lifecycle Manager/VMware Update Manager (VUM) - Securely Boot ESXi hosts - Configure different network stacks - Configure Host Profiles - Identify boot options   * Configure Quick Boot |
| Performance-tuning, Optimization, Upgrades | - Identify resource pools use cases   * Explain shares, limits and reservations (resource management)   - Monitor resources of vCenter Server Appliance and vSphere environment - Identify and use tools for performance monitoring - Configure Network I/O Control (NIOC) - Configure Storage I/O Control (SIOC) - Explain the performance impact of maintaining virtual machine snapshots - Plan for upgrading various vSphere components |
| Troubleshooting and Repairing |  |
| Administrative and Operational Tasks | - Create and manage virtual machine snapshots - Create virtual machines using different methods (Open Virtual Machine Format (OVF) templates, content library, etc.) - Manage virtual machines - Manage storage (datastores, storage policies, etc.)   * Configure and modify datastores (expand/upgrade existing datastore, etc.) * Create virtual machine storage policies * Configure storage cluster options   - Create Distributed Resource Scheduler (DRS) affinity and anti-affinity rules for common use cases - Configure and perform different types of migrations - Configure role-based user management - Configure and manage the options for securing a vSphere environment (certificates, virtual machine encryption, virtual Trusted Platform Module, lock-down mode, virtualization-based security, etc.) - Configure and manage host profiles - Utilize baselines to perform updates and upgrades - Utilize vSphere Lifecycle Manager   * Describe Firmware upgrades for ESXi * Describe ESXi updates * Describe component and driver updates for ESXi * Describe hardware compatibility check * Describe ESXi cluster image export functionality   - Configure alarms |