Course Content of VMware:

1. Course Introduction
   o Introductions and course logistics
   o Course objectives
   o References and resources

2. Software-Defined Data Center
   o Introduce components of the software-defined data center
   o Describe where vSphere fits into the cloud architecture
   o Install and use vSphere Client
   o Overview of ESXi

3. Creating Virtual Machines
   o Introduce virtual machines, virtual machine hardware, and virtual machine files
   o Create and work with virtual machines and templates

4. vCenter Server
   o Introduce the vCenter Server architecture
   o Deploy and configure vCenter Server Appliance
   o Use vSphere Web Client
   o Manage vCenter Server inventory objects and licenses

5. Configuring and Managing Virtual Networks
   o Describe, create, and manage standard switches
   o Configure virtual switch security and load-balancing policies
   o Create, configure, and manage vSphere distributed switches, network connections, and port groups

6. Configuring and Managing Virtual Storage
   o Introduce storage protocols and storage device types
   o Discuss ESXi hosts using iSCSI and NFS storage
   o Create and manage VMFS and NFS datastores
   o Introduce VMware Virtual SAN™
   o Introduce Virtual Volumes

7. Virtual Machine Management
   o Use templates and cloning to deploy new virtual machines
   o Modify and manage virtual machines
   o Perform vSphere vMotion and vSphere Storage vMotion migrations
   o Create and manage virtual machine snapshots
   o Create vApps

- o Introduce the types of content libraries and how to deploy and use them

8. Resource Management and Monitoring
   - o Introduce virtual CPU and memory concepts
   - o Configure and manage resource pools
   - o Describe methods for optimizing CPU and memory usage
   - o Use various tools to monitor resource usage
   - o Create and use alarms to report certain conditions or events
   - o Identify and troubleshoot virtual machine resource issues
   - o Introduce vRealize Operations Manager for data center monitoring and management

9. vSphere HA and vSphere Fault Tolerance
   - o Explain the vSphere HA architecture
   - o Configure and manage a vSphere HA cluster
   - o Use vSphere HA advanced parameters
   - o Introduce vSphere Fault Tolerance
   - o Enable vSphere Fault Tolerance on virtual machines
   - o Introduce vSphere Replication
   - o Use vSphere Data Protection to back up and restore data

10. Host Scalability
    - o Describe the functions and benefits of a vSphere DRS cluster
    - o Configure and manage a vSphere DRS cluster
    - o Work with affinity and anti-affinity rules
    - o Use vSphere HA and vSphere DRS together for business continuity

11. vSphere Update Manager and Host Maintenance
    - o Use vSphere Update Manager to manage ESXi patching
    - o Install vSphere Update Manager and the vSphere Update Manager plug-in
    - o Create patch baselines
    - o Use host profiles to manage host configuration compliance
    - o Scan and remediate hosts

12. Installing vSphere Components
    - o Install ESXi
    - o Introduce vCenter Server deployment options
    - o Describe vCenter Server hardware, software, and database requirements
    - o Discuss installation of vCenter Server Appliance and a vCenter Server instance
    - o Demonstrate vCenter Server installation