

# LPI

## Exam 304-200

### LPI Level 3 Exam 304

Version: 7.0

[ Total Questions: 120 ]

**Topic break down**

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**Topic 1, Virtualization****Question No : 1 - (Topic 1)**

When used with KVM, which of the following block device image formats support snapshots?

- A. qcow
- B. dmg
- C. qed
- D. qcow2
- E. raw

**Answer: D**

**Question No : 2 - (Topic 1)**

Which of the following statements is true regarding VirtualBox?

- A. VirtualBox uses container-based virtualization and can only run virtual machines using the operating system of the host system.
- B. VirtualBox can only be run from a graphical desktop environment and not from the text console.
- C. VirtualBox provides special device drivers for several operating systems to enhance the virtual machine's performance.
- D. VirtualBox contains a hypervisor that runs independently from any other operating system on a bare metal host.
- E. VirtualBox is part of the vanilla Linux kernel and does not require any additional software installation on recent Linux distributions.

**Answer: C**

**Question No : 3 - (Topic 1)**

When migrating a physical machine to a full virtualized machine, which of the following properties should be expected to change from the perspective of the guest operating system? (Choose TWO correct answers.)

- A. The user accounts within the guest operating system.
- B. The properties of the CPU and other hardware devices.
- C. The MAC address of the network interfaces.
- D. The version of the guest operating system.
- E. The software and applications installed on the guest system.

**Answer: B,C**

**Question No : 4 - (Topic 1)**

Which of the following statements are true regarding Xen domains? (Choose TWO correct answers.)

- A. Fully virtualized and paravirtualized domains are managed using the same tools and commands.
- B. Xen domains of all types require virtualization extensions in the host system's CPU.
- C. All fully virtualized domains are called 'Dom0' while all paravirtualized domains are called 'DomU'.
- D. Both paravirtualized and fully virtualized domains may run on the same host system.
- E. Paravirtualized domains are significantly slower than fully virtualized domains.

**Answer: A,D**

**Question No : 5 - (Topic 1)**

Which of the following statements describes the concept behind paravirtualization?

- A. Guest operating systems are modified to actively cooperate with the hypervisor in order to ease virtualization costs and gain better performance.
- B. Instead of running full virtual machines, containers are used to separate distinct parts of one commonly shared operating system that appear as a virtual machine.
- C. To avoid the need for virtualization, special security measures are taken to allow different applications to coexist on one physical machine.
- D. Each operating system is trusted to use only those resources assigned to it, thereby eliminating the need of an additional virtualization layer.

**Answer: A**

**Question No : 6 - (Topic 1)**

Which of the following technologies is the most important component of IaaS clouds?

- A. Database replication
- B. DNS delegation
- C. Emulation
- D. Mandatory Access Control
- E. Virtualization

**Answer: E**

**Question No : 7 CORRECT TEXT - (Topic 1)**

Which command was used in Xen 3.x as a predecessor of the xl command? (Specify ONLY the command without any path or parameters.)

**Answer: xm**

**Question No : 8 - (Topic 1)**

Which of the following are valid KVM parameters? (Choose THREE correct answers.)

- A. -drive file=iscsi://user%password@fileservers/iqn.2001-04.com.example/1
- B. -drive file=rsync://user%password@fileservers:/tmp/file.iso,media=cdrom,readonly
- C. -drive file=ssh://user@host/tmp/file.img
- D. -drive file=imap://user:password@mailserver:/INBOX/Wufnc6MjYp@mailgate
- E. -drive file=http://user:password@fileservers/pub/linux.iso,media=cdrom,readonly

**Answer: A,C,E**

**Question No : 9 - (Topic 1)**

Which of the following commands provides a detailed list of all image files contained in the libvirt storage pool vol1?

- A. `virsh list --volumes --pool vol1 --details`
- B. `virsh vol-details vol1`
- C. `virsh --show-pool vol1 --details`
- D. `virsh vol-list vol1 --details`
- E. `virsh volumes --source vol1--details`

**Answer: D**

**Question No : 10 - (Topic 1)**

Which of the following directives is used in the configuration file of a Xen guest domain in order to define network interfaces?

- A. `vif`
- B. `eth`
- C. `vnet`
- D. `vbr`
- E. `net`

**Answer: A**

**Question No : 11 - (Topic 1)**

Which of the following statements are true regarding hardware based virtualization?  
(Choose TWO correct answers.)

- A. Hardware based virtualization requires special support in the host system's hardware which is present in all recent x86-based computers.
- B. Hardware based virtualization implements a whole machine in software and therefore can run virtual machines of a given hardware platform on an arbitrary host system.
- C. Hardware based virtualization relies on the host system's processor to call the hypervisor when critical instructions are executed by a virtual machine.
- D. Hardware based virtualization is not available on x86-based CPU architectures and requires special virtualization host hardware.

**Answer: A,C**

**Question No : 12 CORRECT TEXT - (Topic 1)**

In order to determine if a virtualization host offers Intel VT-x support, which CPU flag must be searched for in the file `/proc/cpuinfo`? (Specify the name of the CPU flag as it is mentioned in the given file only without any additional information.)

**Answer:** `vmx`, `VMX`

**Question No : 13 - (Topic 1)**

How can data be shared between several virtual machines running on the same Linux-based host system?

- A. By mounting other VM's file systems from `/dev/virt-disks/remote/`.
- B. By using a network file system or file transfer protocol.
- C. By default, Linux-based virtualization products provide full access to the host system to all virtual machines.
- D. By setting up a ramdisk in one virtual machine and mounting it using its UUID in the other VMs.
- E. By attaching the same virtual hard disk to all virtual machines and activating EXT4 sharing extensions on it.

**Answer:** B

**Question No : 14 - (Topic 1)**

Which of the following commands boots a KVM virtual machine using Debian GNU/Linux?

- A. `qemu -create -drive file=debian.img -cdrom debian.iso -m 1024 -boot d`
- B. `qemu-kvm -drive file=debian.img -cdrom debian.iso -m 1024 -boot d`
- C. `kvm -create -drive file=debian.img -cdrom debian.iso -m 1024 -boot d`
- D. `kvm -qemu -drive file=debian.img -cdrom debian.iso -m 1024 -boot d`

**Answer:** B

**Question No : 15 - (Topic 1)**

Which of the following restrictions is true when using KVM with the User Network?

- A. Virtual Machines must use a SOCKS proxy to connect to the internet.
- B. Virtual Machines can communicate with the host system and with other virtual machines using User Network.
- C. Virtual Machines can only communicate with other virtual machines but not with the host system.
- D. Virtual Machines cannot use ICMP.
- E. Virtual Machines are restricted to only use IPv6 and not IPv4.

**Answer: D**

**Question No : 16 - (Topic 1)**

Which of the following tasks are part of a hypervisor's responsibility? (Choose TWO correct answers.)

- A. Create filesystems during the installation of new VM guest operating systems.
- B. Provide host-wide unique PIDs to the processes running inside the VMs in order to ease interprocess communication between virtual machines.
- C. Map the resources of virtual machines to the resources of the host system.
- D. Ensure isolation and eliminate any interference between virtual machines.
- E. Manage authentication to network services running inside a virtual machine.

**Answer: C,D**

**Question No : 17 - (Topic 1)**

Which of the following tasks is performed by Vagrant?

- A. It migrates virtual machines automatically between host systems to distribute the load of all virtual machines equally to all hosts involved.
- B. It automates the installation of a virtual machine according to a configuration file describing the desired VM.
- C. It monitors the functionality of a virtual machine and restarts the VM in case of failure.
- D. It is a hypervisor optimized for the usage in embedded systems based on the ARM CPU architecture.
- E. It is a programming interface used to create reports from collected performance and resource usage data of a libvirt-based virtualization infrastructure.

**Answer: B**