**CSCI 6345**

**Quiz VM**

Match the following:

|  |
| --- |
| 1\_\_**c**\_ Early Computers  2. \_**d**\_\_ O.S. and other software bound to hardware  3.\_**e**\_ Only one O.S. may run at a time  4. \_**b**\_ CPU usage by a single O.S.  5. \_**f**\_ Multiple O.S. hosted at the same time by single hardware.  6. \_**a**\_ Each virtual machine is a process on hosted virtualization |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| |  | | --- | | a.Each VM gets a VM number and unique virtual pages | | b. Inefficient CPU usage. | | c. One O.S. on each hardware | | d. Restoring a system required original hardware | | e. Several O.S. on the same system, choose one to run. | | f. Virtual machines | |

7. What is the main advantage of VM technology

a. Can buy inexpensive hardware

b. does not require much RAM

**c. Removes hardware dependency of O.S.**

d. Computer backup is not required.

8. Virtual machine technology creates pool of resources managed by hypervisor:

a. CPU pool

b. Memory pool

c. Storage pool

**d. all of these**

9. Operating system resides directly on the hardware

a. hosted virtualization

**b. bare-metal virtualization**

c. one O.S. on top of another operating system

d. Each virtual machine is treated as a process

10. In hosted virtualization which of the following is not correct

a. each virtual machine is treated as a process and a file

b. Virtual memory is modified to have VM number and its page number

c. CPU gives a time slice to each VM

**d. Each VM is highly dependent on the underlying hardware**

11. Which of the following is false about the Hypervisor

**a. Hypervisor is part of each VM created**

b. Used to create and manage VMs

c. The hypervisor allocates resources needed by the VMs.

d. VIM (virtual infrastructure manager) is used by the hypervisor to automate allocating resources to VMs.

**Following questions are for graduate students only.**

I will be posting key for the multiple-choice questions. No key is given for essay type, please refer to ppt and lecture notes:

12. Explain the function of each the following components of the CPU

PC- Program Counter

MBR- Memory Buffer Register

MAR- Memory Address Register

ALU- Arithmetic Logic Unit

IR- Instruction Register

General Purpose Registers

13. Explain virtual memory and paging in relation to Virtual Machines.