

LPIC-2 Exam 201

1. Which of the following is a side effect of extensive usage of swap space?

A. The root filesystem may become full because swap space is always located on the system root partition.

B. The overall system performance may degrade because of heavy hard disk use and memory reorganization.

C. Since processes always exist completely in either RAM or swap, regular RAM may become unused if the kernel does not move processes back from the swap space to memory.

D. The memory may become fragmented and slow down the access to memory pages. However, this can be kept to a minimum by the regular use of memfrag -d.

E. Applications need to restart because their virtual memory addresses change to reflect memory relocation to the swap address area.

Answer(s): B

2. In the below example output, which columns detail the percent of time the CPU spent running non-kernel code and the percent of time the CPU spent running kernel code? (Choose TWO correct answers.) # vmstat 1 100

```
procs -----memory----- ---swap-- -----io----- --system-- ----cpu---- r b swpd free buff cache si
so bi bo in cs us sy id wa
0 0 0 282120 134108 5797012 0 0 0 2 0 0 0 0 100 0
0 0 0 282120 134108 5797012 0 0 0 0 1007 359 0 0 100 0
0 0 0 282120 134108 5797012 0 0 0 0 1117 577 0 0 100 0
0 0 0 282120 134108 5797012 0 0 0 0 1007 366 0 0 100 0
```

A. id

B. us

C. wa

D. sy

Answer(s): B D

3. When planning a web server which of the following choices will impact system sizing? (Choose THREE correct answers.)

A. How many concurrent users are expected.

B. Which hardware vendor has better Linux support.

C. What type of content will be served.

D. What scripting languages will the web server support.

E. Will the OS install be CD, DVD or network based.

Answer(s): A C D

4. Which commands below are useful to collect data about remote filesystem connections? (Choose TWO correct answers.)

A. pidstat

B. nfsiostat

C. sadf

D. cifsostat

Answer(s): B D

5. In the following output, what percentage of time was the CPU waiting for pending I/O? # vmstat 1 100
procs -----memory----- ---swap-- -----io----- --system-- -----cpu---- r b swpd free buff cache si
so bi bo in cs us sy id wa

0 0 0 282120 134108 5797012 0 0 0 2 0 0 0 0 100 0
0 0 0 282120 134108 5797012 0 0 0 0 1007 359 0 0 100 0
0 0 0 282120 134108 5797012 0 0 0 0 1117 577 0 0 100 0
0 0 0 282120 134108 5797012 0 0 0 0 1007 366 0 0 100 0

A. 0

B. 100

C. 35.9

D. 57.7

E. 36.6

Answer(s): A

6. In capacity planning exercises, which tools assist in listing and identifying processes of interest? (Choose TWO correct answers.)

A. acpid

B. lsof

C. pstree

D. telinit

Answer(s): B C

7. In this example output, which descriptions match the purpose of the free, buff and cache columns? (Choose THREE correct answers.)

vmstat 1 100

procs ----- memory----- --- swap-- -----io----- -- system-- ---- cpu---- r b swpd free buff cache
si so bi bo in cs us sy id wa

0 0 0 282120 134108 5797012 0 0 0 2 0 0 0 0 100 0

0 0 0 282120 134108 5797012 0 0 0 0 1007 359 0 0 100 0

```
0 0 0 282120 134108 5797012 0 0 0 0 1117 577 0 0 100 0
0 0 0 282120 134108 5797012 0 0 0 0 1007 366 0 0 100 0
```

A. Used swap space

B. RAM available for filesystem buffers

C. Available free RAM

D. RAM used for buffers

E. RAM used for filesystem cache

Answer(s): C D E

8. In the following output, what is the 5 minute load average for the system? # uptime
12:10:05 up 18 days, 19:00, 2 users, load average: 0.47, 24.71, 35.31

A. 0.47

B. 24.71

C. 35.31

D. There is no 5 minute interval. It is some value between 0.47 and 24.71.

E. There is no 5 minute interval. It is some value between 24.71 and 35.31.

Answer(s): B

9. What option in the collectd configuration file is required in order to define what to start monitoring?

A. LoadModule

B. Module

C. Plugin

D. LoadPlugin

Answer(s): D

10. Which of the following commands will provide the PIDs of the processes sorted by which are using the most CPU cycles on the Linux system?

A. top

B. uptime

C. ps aux

D. vmstat

E. freemem

Answer(s): A

11. In the following output, the load averages represent the system load averages for what time frames?

12:10:05 up 18 days, 19:00, 2 users, load average: 0.47, 24.71, 35.31

A. 1, 5 and 15 minutes

B. 1, 15 and 30 minutes

C. 1, 15, and 30 seconds

D. 15, 30 and 60 minutes

E. 15, 30 and 60 seconds

Answer(s): A

12. Which of the following tools are used to measure memory usage? (Choose THREE correct answers.)

A. mpstat

B. pstree

C. sar

D. top

E. vmstat

Answer(s): C D E

13. When is historical data of resource usage important? (Select THREE correct answers.)

A. Predicting when resources will need to be increased.

B. Selecting a computer vendor.

C. Identifying processes killed during out of memory occurrences.

D. Diagnosing capacity problems.

E. Troubleshooting a software problem.

Answer(s): A D E

14. Which command will report information on memory usage, paging and block input/output?

A. free

B. memshow

C. ps

D. top

E. vmstat

Answer(s): E

15. In the following output from top, which processes contribute to the percentage of time that the CPU spends in the state of wa?

Tasks: 193 total, 1 running, 190 sleeping, 2 stopped, 0 zombie

Cpu(s): 0.5%us, 0.3%sy, 0.0%ni, 98.2%id, 1.0%wa, 0.0%hi, 0.0%si, 0.0%st

A. Processes waiting for user interaction.

B. Processes that were already closed and are waiting to be launched again.

C. Processes that have not been scheduled yet because they haven't been fully loaded into RAM or are in swap.

D. Processes waiting for IO operations to complete.

Answer(s): D

16. What mechanism does collectd use to gather monitoring information on systems?

A. It uses a library of plugins.

B. A master server connects to a collectd service on each machine to retrieve the information.

C. It collects its own information on each server and sends that to a master server.

D. It makes SNMP queries to the clients being monitored.

Answer(s): A

17. What information does the file modules.dep provide?

A. A list of all modules, compiled or not, that are available to the kernel.

B. A list of modules trusted by the installed kernel.

C. A list of devices and their module name.

D. A list of all compiled modules and their dependencies.

E. A list of modules the kernel needs to run.

Answer(s): D

18. After configuring a new kernel, what file under `/usr/src/linux/` contains the configuration?

A. `/usr/src/linux/.config`, `.config`

B. `/usr/src/linux/ .config`

Answer(s): A

19. Which of the following terms are used to describe 3.x kernel releases?

(Choose TWO correct answers.)

A. beta

B. final

C. longterm

D. prerelease

E. stable

Answer(s): C E

20. What is the purpose of the command `udevadm monitor`?

A. It listens to kernel events produced by a udev rule and print information to the console.

B. It monitors the /dev directory for new devices.

C. It monitors the udev process and prints performance statistics to the console.

D. It communicates with D-Bus to setup new devices.

Answer(s): A
