

CST8177 Linux II F16 Midterm II**Multiple Choice**

Identify the choice that best completes the statement or answers the question.

- 1 Which local file binds a hostname to an IP address to allow local name resolution?
 (a) /etc/resolv.conf (b) /etc/hosts (c) /etc/motd (d) /etc/hostname
 (e) /etc/mtab
- 2 Which command could you use to determine the resolution of an image file?
 (a) file (b) xfs_info (c) getent (d) wc (e) locate
- 3 Which of the following does not display information about hardware?
 (a) lsusb (b) ps aux (c) fdisk (d) lsmod (e) lspci
- 4 What command can you use to list what units must be started before the `bluetooth.service` can be started?
 (a) systemctl list-units --type bluetooth.service (b) systemctl list-dependencies bluetooth.service (c) systemctl show-dependencies bluetooth.service (d) systemctl isolate bluetooth.service
 (e) systemctl list-unit-files bluetooth.service
- 5 What command can you use to become the root user?
 (a) elevate (b) su root (c) su (d) chown root (e) machinectl enable
- 6 What is the path to the configuration file for the package manager in CentOS 7?
 (a) /etc/ld.so.conf (b) /etc/yum.conf (c) /etc/mdadm.conf
 (d) /etc/logrotate.conf (e) /etc/rsyslog.conf
- 7 What is the name of the default shell in CentOS 7?
 (a) bash (b) sh (c) zsh (d) dash (e) csh
- 8 What switch can you use with `systemctl` to determine what features are supported by the version of `systemd` you are running?
 (a) --feature-list (b) -r (c) --version (d) --edition (e) --features
- 9 Which command can you use to install and remove packages in CentOS 7?
 (a) aptitude (b) yum (c) tar (d) wget (e) apt-get

- 10 Which of the following commands will tell you how long a Linux system took to boot?
Ⓐ journalctl Ⓑ systemd-cgtop Ⓒ systemd-analyze Ⓓ systemctl
Ⓔ systemd-cgls
- 11 Which of these utilities will display the message "This account is currently not available."
Ⓐ motd Ⓑ userdel Ⓒ issue Ⓓ passwd Ⓔ nologin
- 12 Which of these utilities can help you discover all the network hops between the system you are on and a destination host on the Internet?
Ⓐ tracepath Ⓑ ifconfig Ⓒ route Ⓓ ping Ⓔ ip
- 13 What is the full command to change your network interface `eno16777736` to the IP address `10.5.4.100` with subnet mask of `/26` ?
a. ip addr add 10.5.4.100/26 dev eno16777736
a. ip addr add 10.5.4.100 255.255.255.192 dev eno16777736
Ⓐ ip addr add 10.5.4.100 255.255.255.128 dev eno16777736 Ⓑ ip add 10.5.4.100/26 dev eno16777736
Ⓒ ip addr 10.5.4.100/26 dev eno16777736
- 14 Which command can you use to add a group?
Ⓐ usermod Ⓑ groupadd Ⓒ gpasswd Ⓓ addgroup Ⓔ /etc/group
- 15 Which file contains a list of shells used by different user accounts?
Ⓐ /etc/group Ⓑ /etc/shadow Ⓒ /etc/chgrp Ⓓ /etc/chown
Ⓔ /etc/passwd
- 16 Which of these files, if created, prevents login by non-root users?
Ⓐ /sbin/nologin Ⓑ /etc/motd Ⓒ /etc/issue Ⓓ /etc/passwd
Ⓔ /etc/nologin
- 17 What command could you use to display listening TCP ports on a Linux system?
Ⓐ ports Ⓑ ss Ⓒ ip Ⓓ dig Ⓔ ping
- 18 What command can you use to list what units must be started before the GUI can be started?
Ⓐ systemctl list-dependencies multi-user.target Ⓑ systemctl show-dependencies graphical.target
Ⓒ systemctl list-dependencies graphical.target Ⓓ systemctl show-dependencies multi-user.target
Ⓔ systemctl isolate multi-user.target

- 19 Which command can determine whether another command is an alias?
(a) file (b) whereis (c) find (d) type (e) locate
- 20 Which of these commands could you use to create a new environment variable?
(a) export (b) var (c) set (d) env (e) uname
- 21 Which command will list active jobs?
(a) systemctl list-jobs (b) jobs (c) jlist (d) run (e) systemctl show-active
- 22 `logind` is correctly referred to as a _____ program.
(a) authorization (b) demon (c) daemon (d) plugin (e) utility
- 23 Which of the following specifies which services will start at boot?
(a) graphical.target (b) multi-user.target (c) default.target
(d) basic.target (e) sysinit.target
- 24 Which of the following commands will list all processes organized by control group?
(a) systemd-cgtop (b) systemctl (c) systemd-analyze (d) systemd-cgls
(e) top
- 25 Which command is used to view `systemd` logs?
(a) cat /var/log/messages (b) logctl (c) dmesg (d) journalctl
(e) systemctl show-log
- 26 Which command can you use to list all units and their state?
(a) systemctl list-units (b) systemctl list-dependencies (c) systemctl
(d) systemctl list-unit-files (e) systemctl list-units --type all
- 27 What command can you use to list all of the files in an installed package?
(a) yum (b) ls (c) rpm (d) menu.lst (e) export
- 28 Which of the following symbols can be used to run a program in the background?
(a) && (b) > (c) | (d) ; (e) &
- 29 What command can you use to display a list of commands you have previously used?
(a) cat /var/log/commands (b) dmesg (c) journalctl (d) cat .history
(e) history

- 30 `networkd` is a part of which Linux subsystem?
(a) systemd (b) DHCP client (c) udev (d) networking service (e) /etc
- 31 Which service is responsible for assigning persistent device names?
(a) systemd-udev (b) systemd-generators (c) rhel-loadmodules
(d) ntp-units (e) user-generators
- 32 If you have 512 MiB of RAM, and the install process requires 1 GiB of RAM, then what is the minimum amount of swap space you need to install Linux?
(a) 0 GiB (b) 1 GiB (c) 512 MiB (d) 2 GiB (e) 1.5 GiB
- 33 Which command can you use to copy a file?
(a) rm (b) copy (c) cp (d) touch (e) mv
- 34 Where is the primary configuration file for systemd located?
(a) /etc/systemd/system.conf (b) ~/.system.conf
(c) /usr/lib/systemd.conf (d) /usr/lib/systemd/system.conf
(e) /etc/systemd.conf
- 35 Which utility could you use to find the IP address associated with the web server www.algonquincollege.com?
(a) dig (b) ipcalc (c) route (d) ss (e) ip
- 36 Which command can you use to list which devices are currently connected to the filesystem tree?
(a) systemctl list-units --type mtab (b) systemctl list-units --type fsys
(c) systemctl --type mtab (d) systemctl list-units --type mount
(e) systemctl list-units
- 37 A new home directory is populated with the contents of _____ .
(a) /etc/home (b) /skel (c) /home (d) /etc/skel (e) ~
- 38 Which of the following specifies which services are the first to start at boot time?
(a) graphical.target (b) default.target (c) multi-user.target
(d) sysinit.target (e) basic.target
- 39 Which of the following would display information about a computer mouse?
(a) fdisk (b) ps aux (c) lsblk (d) lsusb (e) xmouse

- 40 Which command will give you the absolute path to a program?
(a) whereis (b) file (c) PATH (d) cd (e) pwd
- 41 What command can you use to switch to the equivalent of "runlevel 5" in CentOS 7?
(a) systemctl activate graphical.target (b) activate graphical.target
(c) systemctl isolate graphical.target (d) init graphical.target
(e) isolate graphical.target
- 42 A host with address 17.18.19.20 is not reachable (the host SHOULD be reachable). You use the `ping` command to check connectivity:
- ```

[root@Venus ~]# ping -c 2 17.18.19.20
PING 17.18.19.20 (17.18.19.20) 56(84) bytes of data.
^C
--- 17.18.19.20 ping statistics ---
2 packets transmitted, 0 received, 100% packet loss, time 2000ms

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- What would be your next step to troubleshoot the problem?
- (a) Use the `dig` command to use UDP packets to test connectivity.  
(b) Use the `ss` command to confirm that the security settings of the firewall are allowing traffic.  
(c) Use the `host` command to look up the domain associated with this IP address.  
(d) Use the `ip` command to confirm that your local interface has an IP address  
(e) Use the `traceroute` command to determine which hop is dropping ICMP packets.
- 43 What command can you use to list all of the files in an installed package?  
(a) menu.lst (b) rpm (c) ls (d) yum (e) export
- 44 What is the name of the NTP daemon used in CentOS 7?  
(a) ntpc (b) timedated (c) ntpd (d) chronyc (e) chronyd
- 45 Which of the following specifies which services are started by `systemd` at the equivalent of "runlevel 3"?  
(a) basic.target (b) multi-user.target (c) default.target  
(d) graphical.target (e) sysinit.target

- 46 Which utility could you use to find the IP address associated with the web server `www.algonquincollege.com`?
- (a) `netstat` (b) `ipcalc` (c) `host` (d) `ifconfig` (e) `route`
- 47 If we wanted to start a service called ``bluetooth-spamd`` after the "bluetooth" target is applied, we could place a link to the service in which directory?
- (a) `/etc/systemd/bluetooth.wants/`  
 (b) `/etc/systemd/system/bluetooth.wants/`  
 (c) `/etc/systemd/bluetooth-spamd.wants/`  
 (d) `/etc/systemd/bluetooth.target.wants/`  
 (e) `/etc/systemd/system/bluetooth.target.wants/`
- 48 Where are package configurations for ``logrotate`` stored?
- (a) `/etc/logrotate.conf` (b) `/etc/logrotate.d/` (c) `/etc/syslog.d/`  
 (d) `/var/log` (e) `/var/log/journal`
- 49 Which command produces output which looks like this:
- ```
procs -----memory----- --swap-- -----io----- -system-- -----cpu-----
 r  b  swpd  free  buff  cache  si  so  bi  bo  in  cs  us  sy  id  wa  st
 0  0    0 7312216 3524 3395816 0  0  12  28  56 140 14  3 83  0  0
 0  0    0 7312236 3524 3395832 0  0  0  0 267 1179 0  0 100 0  0
 0  0    0 7312340 3524 3395832 0  0  0  0 225  920 0  0 100 0  0
 0  0    0 7312340 3524 3395832 0  0  0  0 204  891 0  0 100 0  0
 0  0    0 7312216 3524 3395832 0  0  0  31 299 2074 0  0 100 0  0
 0  0    0 7311708 3524 3395832 0  0  0  0 506 3533 0  0 99  0  0
...
(a) vmstat (b) uptime (c) watch (d) top (e) free
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- 50 What command will refresh the file index used by the ``locate`` command?
- (a) `update_index` (b) `refreshdb` (c) `refresh_index` (d) `updatedb`
 (e) `locate -u`

CST8177 Linux II F16 Midterm II Answer Section

MULTIPLE CHOICE

1	ANS: B	PTS: 1
2	ANS: A	PTS: 1
3	ANS: B	PTS: 1
4	ANS: B	PTS: 1
5	ANS: C	PTS: 1
6	ANS: B	PTS: 1
7	ANS: A	PTS: 1
8	ANS: C	PTS: 1
9	ANS: B	PTS: 1
10	ANS: C	PTS: 1
11	ANS: E	PTS: 1
12	ANS: A	PTS: 1
13	ANS: A	PTS: 1
14	ANS: B	PTS: 1
15	ANS: E	PTS: 1
16	ANS: E	PTS: 1
17	ANS: B	PTS: 1
18	ANS: C	PTS: 1
19	ANS: D	PTS: 1
20	ANS: C	PTS: 1
21	ANS: B	PTS: 1
22	ANS: C	PTS: 1
23	ANS: C	PTS: 1
24	ANS: D	PTS: 1
25	ANS: D	PTS: 1
26	ANS: D	PTS: 1
27	ANS: C	PTS: 1
28	ANS: E	PTS: 1
29	ANS: E	PTS: 1
30	ANS: A	PTS: 1

31	ANS: A	PTS: 1
32	ANS: C	PTS: 1
33	ANS: C	PTS: 1
34	ANS: A	PTS: 1
35	ANS: A	PTS: 1
36	ANS: D	PTS: 1
37	ANS: D	PTS: 1
38	ANS: D	PTS: 1
39	ANS: D	PTS: 1
40	ANS: A	PTS: 1
41	ANS: C	PTS: 1
42	ANS: E	PTS: 1
43	ANS: B	PTS: 1
44	ANS: E	PTS: 1
45	ANS: B	PTS: 1
46	ANS: C	PTS: 1
47	ANS: E	PTS: 1
48	ANS: B	PTS: 1
49	ANS: A	PTS: 1
50	ANS: D	PTS: 1