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[Introduction to Linux II – Final Comprehensive Exam Answers 2019 + PDF file](#)

1. The reference time that the system time is calculated from is known as:
 - GMT
 - **Epoch time ***
 - Base time
 - UTC
2. The date command is used for:
 - Viewing current date and time
 - Assigning filenames with timestamps suffixed to them in scripts
 - Setting the system date and time
 - **All choices are valid ***
3. The precision provided by NTP is on the order of:
 - 1 millisecond
 - **Tens of million seconds ***
 - 1 second
 - 1 hour
4. Which of the following options, when used with the ntpd command, will perform a one time synchronization:
 - -c
 - -g
 - **-q ***
 - -N
5. The /etc/ntp.conf file lists three servers for querying. Two of them return the time 10:54:23 while the third one shows a different time (i.e. 10:50:37). The system will use which of the return values?
 - **It will use 10:54:23 since this is what the majority of servers indicate ***
 - It will use an average of the time
 - It will use 10:50:37 if this is closer to the system's current time
 - It will use the time of the server that was queried first
6. Two NTP servers are used by ntpd; one runs Stratum-2 clock while the other uses Stratum-4. Which one is considered to be more accurate?
 - **Stratum-2 ***
 - It is impossible to tell by the Stratum number
 - Stratum-4
 - Both are equally accurate
7. To verify if a NTP server is available, which of the following commands should be executed?
 - **ntpdate -q ***
 - ntpdate
 - ntpdate -t

- ntpdate -p
- 8. The daemon that provides logging services for applications and programs is:
 - SNMP
 - klogd
 - **syslogd ***
 - applog
- 9. System administrators can use logs for all of the following, except:
 - Troubleshooting hardware
 - **Installing new packages ***
 - Troubleshooting software
 - Tuning the system for efficiency or security
- 10. Which of the following commands is not used to view log files on a Linux operating system?
 - less
 - tail
 - grep
 - **echo ***
- 11. Errors relating scheduled cron jobs can be found at which of the following locations?
 - /var/log/crond.log
 - **/var/log/cron.log ***
 - /var/log/syslog
 - /var/log/auth.log
- 12. The system administrator is seeing a surge in the number of logged messages. She checked the process accounting setting and it is not turned on. What else could be the reason for the sudden increase?
 - Server is running slow
 - The klogd daemon is not running
 - **Due to configuration errors or hardware errors ***
 - Few processes are running in the background
- 13. Each line in syslog.conf must specify:
 - Action
 - Selector facility
 - Selector priority
 - **All choices are valid ***
- 14. Which of the following selector settings in syslog.conf will select all kernel messages?
 - kern.=err
 - *.kern
 - kernel.*
 - **kern.***
- 15. Which of the following ports should be opened in the firewall to allow centralized logging?
 - TCP 443
 - TCP 514
 - **UDP 514 ***
 - UDP 554
- 16. Which option to the logger command is used to specify a tag for the log entry?

- -f
 - **-t ***
 - -l
 - -s
17. Which of the following logger command options will use the message specified in the temp_message file?
- logger -l temp_message
 - **logger -f temp_message ***
 - logger -s temp_message
 - logger -t temp message
18. The transfer of messages between machines and routing them to the correct destination is done by the Mail Transfer Agents (MTAs). True or False?
- **True ***
 - False
19. While accessing mail through the mail command interface, a user sees 5 new messages in his mailbox. Since the second message appears important, he would like to read that message first. Which mailcommand should be used?
- display 2
 - **2 ***
 - print 2
 - show 2
20. A user is having trouble accessing the CDROM drive. He wants to send a message to the root user for help. Which of the following commands will create a new message that will be sent to the root user?
- mail new_mesaage
 - **mail root ***
 - mail @root
 - sendmail -n
21. Which of the following information is NOT available in the output from the mailq command?
- Size
 - Sender
 - **Out time ***
 - Arrival time
22. Deborah created a new alias and added it to the mail alias file. Next, she tried to use the alias through the sendmail command, but the new alias is not working. What is the most likely reason?
- New alias already existed
 - Maximum number of aliases is exceeded
 - **File aliases.db was not rebuilt using the newaliases command ***
 - New alias was added with incorrect syntax
23. A message was forwarded as per the .forward file found in the user's home directory. What happens to the original message?
- It goes back to the message queue
 - It is sent back to the sender

- A copy is retained in user's mailbox
 - **Original message gets forwarded, no copy retained ***
24. Which of the following is NOT a core module of qmail?
- qmail-send
 - **qmail-master ***
 - qmail-smtpd
 - qmail-remote
25. CUPS stands for:
- Co-managed UNIX Printing System
 - **Common UNIX Printing System ***
 - Common User Printing System
 - Current User Printing System
26. By mistake, a user sends a file to print on a remote printer. The best course of action is:
- Ask the administrator to switch off the printer
 - **Delete the document if the print document is still in the queue ***
 - Stop printer service immediately
 - Call up the remote location and have them reject the print job from the printer controls
27. A user reports to the system administrator that when printing a Japanese web page, he gets junk characters. Which of the following settings should the system administrator check in the CUPS configuration file?
- BrowsePort
 - BrowseLang
 - **DefaultLanguage ***
 - BrowseAllow
28. CUPS can only be administered by:
- No administration options are available
 - Depends on Allow, Deny directives
 - **Root User and members of the group specified in the SystemGroup directive ***
 - Remote Printers
29. Which of the following statements regarding cupsd is FALSE?
- Implements IPP operations and attributes
 - By default it runs as a daemon
 - Uses other processes for printing, monitoring and providing web interfaces
 - **Runs as multi-threaded server process ***
30. Which of the following statements about CUPS Print Queues is correct?
- **Supports another CUPS printer server on the network ***
 - Does not support Windows-based print servers
 - Cannot be added using the lpadmin command
 - Works only for locally connected printers
31. Identify the correct command to view the status of all printers:
- lpr
 - lpq
 - lpq -P hpffloor1
 - **lpq -a ***
32. What is used to partition a network into different logical networks?

- Dividing
 - **Subnetting ***
 - Partitioning
 - Masking
33. The 4th octet is used for creating subnets for Class C networks.
True or False?
- **True ***
 - False
34. Which are the different types of IP addresses used on the Internet?
- Public and Broadcast
 - Public and Proxy
 - Private and Proxy
 - **Public and Private ***
35. Which of the following does not need a public IP address?
- DNS Server
 - Email Server
 - Proxy Server
 - **User's Computer Section ***
36. Which file is used for mapping the application services to their respective port numbers?
- /etc/ports
 - /etc/netservices
 - **/etc/services ***
 - /etc/network
37. Which of the statements are not true about the routing table?
- The routing table can be modified by the root user only
 - **The default gateway is not specified in the routing table ***
 - The IP layer consults the routing table
 - The ip command is used to set up routing
38. Which protocol uses a sequence number mechanism to ensure ordered delivery of data?
- **TCP ***
 - ICMP
 - IP
 - UDP
39. What is the size of UDP headers?
- 20 bytes
 - Maximum 10 bytes
 - 12 bytes
 - **8 bytes ***
40. FTP encrypts the user name and password entered by the user to log in.
True or False?
- True
 - **False ***
41. The _____ indicates the maximum number of IP routers that can route a packet.
- Time to Route

- **Time to Live ***
 - Time to Reach
 - Router Hops
42. The system administrator tries to assign the value host*2014@SNG using the hostname command. What is the result of executing this command?
- The command will complete successfully
 - The command will complete with a warning
 - The special characters will be deleted and the value assigned to hostname
 - **This value cannot be assigned since special characters other than – and . are not allowed in hostname ***
43. Which of the configuration directives given below is not found in the /etc/resolv.conf file?
- nameserver
 - domain
 - **parameters ***
 - sortlist
44. Which file contains host and routing details of all configured network interfaces for Red Hat based systems?
- **/etc/sysconfig/network ***
 - /etc/sysconfig
 - /etc/network
 - /etc/sys/network
45. Which command is used to assign a netmask to eth1?
- **ifconfig eth1 netmask 255.255.255.224 ***
 - ifconfig eth1 submask 255.255.255.224
 - ifconfig eth1 netmask 255.255.255.
 - ifconfig eth1 –net-mask 255.255.255.224
46. The kernel's routing table contains static and dynamic routes. True or False?
- True
 - **False ***
47. Which of the following is not shown in the output of the ifconfig command?
- Packets dropped
 - Packets transmitted
 - **TTL ***
 - Packets received
48. Which of the information listed below is not shown by the ping command?
- TTL
 - **Route to the destination ***
 - Round-trip Time
 - Packet Loss
49. Which file will be used to enable DHCP based configuration on Red Hat based systems?
- /etc/sysconfig/network-scripts/ifconfig-eth0
 - /etc/network-scripts/ifcfg-eth0
 - **/etc/sysconfig/network-scripts/ifcfg-eth0 ***

- /etc/sysconfig/network-scripts/eth0
50. Which API is used to query address information from the Name Service Switch (NSS) resolver?
- getaddrfields()
 - gethostinfo()
 - **getaddrinfo() ***
 - getaddrent()
51. How is the DNS configuration file /etc/resolv.conf setup?
- **By network initialization scripts ***
 - Downloaded from Internet
 - By the ifconfig utility
 - Default values provided during installation
52. If you are trying to login to a server and are unable to connect, which command would you use to verify network connectivity?
- dig
 - **ping ***
 - traceroute
 - ifconfig
53. Which command is used to restart the network service on Red Hat systems?
- /etc/network/interfaces restart
 - **/etc/init.d/network restart ***
 - /etc/init.d/network resume
 - /etc/init.d/rc.d/network restart
54. The network interface disabled using the ifdown command will remain disabled after the system restarts.
True or False?
- True
 - **False ***
55. Which of the following is not a probable reason for the Host unreachable error?
- **Incorrect username/password used for login ***
 - Incorrect route configured for the default gateway
 - Network service on host machine not started
 - Incorrect netmask used for the default gateway
56. Which of the following is not a function of the netstat command?
- View interface statistics
 - View the kernel's routing tables
 - **View the route used by packets to reach a given destination ***
 - View port information
57. Which command can be used to find the ports that are listening for connections on a host?
- netstat -z
 - netstat -s
 - **netstat -l ***
 - netstat -a

58. You have an existing interface eth0 and have now added a new interface eth1. You notice that the count of RX and TX packets is 0 in the output of ifconfig. What does this indicate?
- The eth0 interface has priority over the eth1 interface
 - The eth1 interface has not been configured on the system
 - **The eth1 interface is not being used to route network traffic ***
 - The eth1 interface has not been assigned a MAC address
59. You log in to a server using telnet and bring down the eth0 interface (the only configured interface) using the ifdown command. What is the result of executing ifdown?
- An error will be displayed that the eth0 interface cannot be disabled
 - **The eth0 interface will be disabled and the telnet session will be terminated ***
 - The eth0 interface will be disabled with a warning
 - The eth0 interface will be disabled and the telnet session will continue
60. Which command is used to keep track of suspicious connections?
- **netstat ***
 - traceroute
 - ifconfig
 - ping
61. The Linux system assigns a default IP address to a newly installed NIC. True or False?
- True
 - **False ***
62. Which of the following user ID types is not supported by Linux?
- **File ***
 - Saved
 - Real
 - Effective
63. Which of the following commands is used to find all files that have the SGID bit set?
- find / -type f -mode -2000
 - find / -type f -perm -4000
 - find / -type f -p -2000
 - **find / -type f -perm -2000 ***
64. Why is the SUID/SGID bit set for the chage command?
- To make the effective user id the same as the saved user id
 - To provide access to all users without any restrictions
 - **To provide user access to files in the /etc directory that are otherwise accessible to root only ***
 - To restrict access to the root user only
65. Which password is required for authentication to use sudo?
- **User's Password ***
 - Root Password
 - No authentication is required
 - Password of the user who owns the application
66. What type of information is stored in the /etc/passwd file?
- **User Account information ***

- User Password information
 - User Password Policy
 - Links to User Account files
67. What is the default value of the `PASS_MAX_DAYS` variable, which defines the maximum number of days before the user must change his password?
- 3
 - 90
 - **99999 ***
 - 9999
68. You need to enforce an organization's policy of mandatory password changes every 90 days. Which command can you use for this?
- **chage -M 90 user_name ***
 - `passwd -M 90 user_name`
 - `useradd -M 90 user_name`
 - `usermod -M 90 user_name`
69. Which of the following is not a state of ports as reported by `nmap`?
- Filtered
 - **Suspended ***
 - Open
 - Closed
70. What is the purpose of the `lsuf` command?
- Listing of all files in the `/etc` directory
 - Listing of all hidden files
 - Listing of all open sockets
 - **Listing of all files opened by active processes ***
71. The system administrator can enforce limits on the size of files created by users (in terms of number of blocks) using the `ulimit` command.
True or False?
- **True ***
 - False
72. Which super server has replaced `inetd`?
- `inet`
 - `ninetd`
 - **xinetd ***
 - `inetdver2`
73. What happens when you login to a host using `telnet`?
- The `inetd` server receives the request on port 23 and services it
 - The `telnetd` server receives the request on port 23 and starts `inetd` to service this connection
 - **The `inetd` server receives the request on port 23 and starts `telnetd` to service this connection ***
 - The `telnetd` server receives the request on port 23 and services it
74. The two files used by TCP Wrappers to control access are _____:
- `/xinet.d/hosts.allow` and `/xinet.d/hosts.deny`
 - `/etc/hosts_tcp.allow` and `/etc/hosts_tcp.deny`
 - `/etc/xinet.d/hosts.allow` and `/etc/xinet.d/hosts.deny`

- **/etc/hosts.allow and /etc/hosts.deny ***
75. What happens to the service request received by TCP Wrappers if the hosts.allow and hosts.deny files do not permit connection?
- Recheck the files for connection 2 more times
 - **Drop the packet and log a message ***
 - Forward the request to the requested service and log a warning
 - Ignore the packet and continue with the next request
76. You are using a server with two NICs, eth0 and eth1. You want to configure TCP Wrappers for using the telnet service on eth1 only in the hosts.allow file, this can be done by specifying ____:
- **telnetd@192.168.0.254: 192.168.0.0/24 ***
 - telnetd(192.168.0.254): 192.168.0.0/24
 - telnetd:192.168.0.254: 192.168.0.0/24
 - telnetd[192.168.0.254]: 192.168.0.0/24
77. The /etc/nologin file is used to prevent all users from logging on to the system. True or False?
- True
 - **False ***
78. What is the PID of the init process?
- **1 ***
 - 0
 - 111
 - 11
79. What does the command, init 6, do?
- **Restart the system ***
 - Restart the system in single user mode
 - Shutdown the system
 - Open the /etc/inittab file for editing
80. Which of the following is not a valid option for the scripts in the /etc/init.d directory?
- start
 - restart
 - stop
 - **query ***
81. What is the limitation of telnet from the security perspective?
- **Sends all data including usernames and passwords in clear text ***
 - Does not provide the algorithm to decrypt the usernames and passwords
 - Does not compress the data
 - Adds digital signatures to authentication data
82. What does the ~/.ssh/id_rsa file contain?
- RSA public key of the user
 - RSA private signature of the user
 - RSA public signature of the user
 - **RSA private key of the user ***
83. The size of a DSA key is:
- Exactly 2048 bits
 - Exactly 768 bits

- **Exactly 1024 bits ***
 - Exactly 1000 bits
84. Which of the following entries in `/etc/ssh/sshd_config` turn on host based authentication?
- `Hostbased_Authentication yes`
 - `HostbasedAuthentication: yes`
 - `HostbasedAuthentication enable`
 - **`HostbasedAuthentication yes *`**
85. You want to ensure that the `ssh-agent` is run for all users, which command can be used for this?
- `/etc/ssh/ssh_known_hosts`
 - `/etc/ssh/userprofile`
 - `/etc/inittab`
 - **`/etc/profile *`**
86. The `ssh-add` program ran for user will, but his RSA identity files were not added, what could be the reason for this?
- The file `/home/will/.ssh/id_rsa` had read permissions for no other user except Will
 - **The file `/home/will/.ssh/id_rsa` has read permissions for users other than Will ***
 - The file `/home/will/.ssh/id_rsa` has read permissions only for Will
 - The file `/home/will/.ssh/id_rsa` had read and write permissions only for Will
87. Which of the following commands are used to setup SSH tunneling?
- `ssh -l`
 - **`ssh -L *`**
 - `ssh -t`
 - `ssh -p`
88. Which is the default configuration file used by GnuPG?
- `~/.gnu/gpg.conf`
 - `~/.gnupg/.gpg.conf`
 - `~/gnupg/gpg.conf`
 - **`~/.gnupg/gpg.conf *`**
89. Which of the following algorithms are not supported by GnuPG for key generation?
- **One-way Hash ***
 - RSA
 - Elgamal
 - DSA
90. Which command is used to verify the signature of a package?
- **`gpg --verify pkg.sig *`**
 - `gpg -V pkg.sig`
 - `gpg verify pkg.sig`
 - `gpg -v pkg.sig`