# LFC110

Question 2.1

What are risks that commonly result from unmanaged use of open source software? Select all answers that apply.

A. Approvals to use OSS are slow

B. Difficulty keeping up with bug fixes

C. Security issues

D. Enhancing functionality is too expensive

E. Developers are not interested in using the selected code

F. The open source software does not work in the required environments

Question 3.1

Which elements are typical parts of an open source strategy? Select all answers that apply.

A. Where will OSS be used?

B. From where may OSS be acquired?

C. OSS will be used to achieve what business objectives?

D. What licenses are acceptable?

E. How are OSS objectives to be achieved?

F. Who is responsible for the open source strategy?

Question 4.1

Which of the following are dimensions of OSS management? Select all answers that apply.

A. Executive participation

B. Frequent meetings

C. Community interaction

D. Code scanning

E. Resource allocation

Question 4.2

Which of the following is not a reason for developing a reviewed license list?

A. Allows developers to choose new OSS wisely, before investing in evaluation

B. Consolidates license review for all cases into one step

C. Insures that compliance requirements are met

D. Facilitates decisions on use in new use classes

E. Streamlines approval processes

Question 5.1

What are the major categories of OSS management processes? Select all answers that apply.

A. OSS approval processes

B. OSS acquisition processes

C. Software release processes

D. Code scanning and analysis processes

E. OSS maintenance processes

F. Legal approval processes

Question 6.1

Which of the following are major steps in implementing an OSS management program? Select all answers that apply.

A. Select tools to support implementation

B. Assess OSS practices and software

C. Develop your OSS policy

D. Perform baseline code audits for your organization/project

E. Develop a training

F. Create a reviewed license list

# LFC219

Question 2.1

The following statement is an unambiguous and complete way to refer to the applicable license. True or False?

/\*

\* This Source Code Form is subject to the

\* terms of the Mozilla Public License, v.2.0.

\* If a copy of the MPL was not

\* distributed with this file, You can obtain

\* one at http://mozilla.org/MPL/2.0

\*/

A. True

B. False

Question 2.2

The following statement is an unambiguous and complete way to refer to the applicable license. True or False?

/\*

\* SPDX=GPL 3.0

\*/

A. True

B. False

Question 2.3

The following statement is an unambiguous and complete way to refer to the applicable license. True or False?

/\*

\* GPL

\*/

A. True

B. False

Question 2.4

The following statement is an unambiguous and complete way to refer to the applicable license. True or False?

/\*

\* http://opensource.org/licenses/EPL-1.0

\*/

A. True

B. False

Question 2.5

The following statement is an unambiguous and complete way to refer to the applicable license. True or False?

/\*

\* SPDX-License-Identifier: BSD-3-Clause

\*/

A. True

B. False

Question 2.6

The following statement is an unambiguous and complete way to refer to the applicable license. True or False?

/\*

\* This program is free software: you can redistribute it and/or

\* modify it under the terms of the GNU Affero General Public License

\* as published by the Free Software Foundation, version 3.

\*

\* This program is distributed in the hope that it will be useful,

\* but WITHOUT ANY WARRANTY; without even the implied warranty of

\* MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the

\* GNU Affero General Public License for more details.

\*

\* You should have received a copy of the GNU Affero General Public License

\* along with this program. If not, see https://www.gnu.org/licenses/.

\*/

A. True

B. False

Question 2.7

The following statement is an unambiguous and complete way to refer to the applicable license. True or False?

/\*

\* The following code is dual-licensed under MIT and Apache-2.0.

\*/

A. True

B. False

Question 2.8

The following statement is an unambiguous and complete way to refer to the applicable license. True or False?

// Use of this source code is governed by a BSD-style

// license that can be found in the LICENSE file.

A. True

B. False

Question 3.1

The following statement is an unambiguous way to refer to copyrights. True or False?

/\*

\* Copyright 2010, Linus Torvalds.

\*/

A. True

B. False

Question 3.2

The following statement is an unambiguous way to refer to copyrights. True or False?

/\*

\* © 1510, Leonardo Da Vinci.

\*/

A. True

B. False

Question 3.3

The following statement is an unambiguous way to refer to copyrights. True or False?

/\*

\* Copyright © 2012-2015, Free Software Foundation, Inc.

\*/

A. True

B. False

Question 3.4

The following statement is an unambiguous way to refer to copyrights. True or False?

/\*

\* Copyright 2001-2003, 2005-2008, 2010-2012, 2014, Linux Foundation.

\*/

A. True

B. False

Question 3.5

The following statement is an unambiguous way to refer to copyrights. True or False?

/\*

\* © 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, Free Software Foundation, Inc.

\*/

A. True

B. False

Question 3.6

The following statement is an unambiguous way to refer to copyrights. True or False?

/\*

\* Copyright.

\*/

A. True

B. False

Question 3.7

The following statement is an unambiguous way to refer to copyrights. True or False?

/\*

\* Copyright Contributors to the OpenColorIO project.

\*/

A. True

B. False

Question 4.1

A valid file notice for copyright and licensing information should appear:

A. At the beginning of the file

B. At the end of the file

C. Anywhere in the file

Question 4.2

When adding significant intellectual work to an existing file you did not create, you should:

A. Replace the file's copyright statement with your copyright statement

B. Update the date of the existing copyright statement

C. Add a new copyright statement

Question 4.3

When adding significant intellectual work to an existing file you did not create which uses the newer format, such as Copyright Contributors to the XYZ Project, which of the following may you do?

A. Replace the existing notice with your own copyright notice

B. Add a second notice with the year and name of copyright holder of the new contributions

C. Make no changes or additions to the notices

D. Either B. or C.

E. Any of A., B. or C.

Question 5.1

If you are employed by a company, but contributing to an upstream project on your own time, and the project requires a contributor agreement, what should you do before submitting?

A. Do nothing; it's ok to submit without bothering with paperwork

B. Fill in an individual contributor agreement

C. Fill in a corporate contributor agreement

D. Consult with your manager or legal counsel

E. None of the above

Question 5.2

The DCO requires your company to sign a contract with the project. True or False?

A. True

B. False

Question 5.3

Which of the following contribution mechanisms transfers ownership of the code from you (or your employer) to the project?

A. Contributor License Agreement

B. Copyright Assignment

C. Developer Certificate of Origin

D. None of the above

Question 5.4

Which of the following is not a common type of Contributor License Agreement?

A. Corporate CLA

B. Individual CLA

C. Employee CLA

Question

The following copyright statements are equivalent. True or False?

Copyright 2001-2015, Free Software Foundation, Inc.

(c) 2001-2004, 2005, 2006, 2008-2015, Free Software Foundation, Inc.

(c) 2001-2015, Free Software Foundation, Inc.

A. True

B. False

Question

Before accepting contributions from another developer, a new project on a public site (like GitHub) should:

A. Declare the license this project is to be governed under

B. Ensure each file has a valid copyright and license identified

C. Check that any imported code has a compatible license and the relevant licenses and copyrights are preserved at the file level with the imported code

D. Determine how the contributions will be accepted

E. All of the above

Question

What is the key difference between strong and weak copyleft licenses?

A. Code included in weak copyleft licensed code does need to inherit the weak copyleft license

B. Works that link to other weak copyleft licensed code may not be required to be copyleft

C. Permissive licensed code included in strong copyleft license work becomes weak copyleft

Question

This is a valid notice. True or False?​

/\* Copyright 2013, Alex Wright

\*

\* This file is licensed under BSD.

\*/

A. True

B. False

Question

This is a valid notice. True or False?

1 /\* Copyright 2013, Linaro Limited

2 \* All rights reserved

3 \*

4 \* SPDX-License-Identifier: BSD-3-Clause

5 \*/

A. True

B. False

Question

Please select what makes this notice invalid.

/\*

\* This file is subject to the terms and conditions of the Apache license.

\*

\* Copyright © 1995

\*/

A. An incorrect copyright statement

B. An ambiguous license reference

C. All of the above

Question

This is a valid file notice. True or False?

# Copyright (c) 2013 Hewlett-Packard Development Company, L.P.

#

# Licensed under the Apache License, Version 2.0 (the "License");

# you may not use this file except in compliance with the License.

# You may obtain a copy of the License at

# http://www.apache.org/licenses/LICENSE-2.0

# Unless required by applicable law or agreed to in writing, software

# distributed under the License is distributed on an "AS IS" BASIS,

# WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or

# implied.

# See the License for the specific language governing permissions and

# limitations under the License.

A. True

B. False

Question

When a developer (Chris Wright, for example) is submitting a patch to a project under the terms of the Developer's Certificate of Origin 1.1 (also known as the DCO), how should this be indicated?

A. Author: Chris Wright

B. Written-by: Chris Wright

C. Signed-off-by: Chris Wright <cw@example.com>

D. Authored-by: Chris Wright [cw@example.com](mailto:cw@example.com)

Question

The following copyright statements are equivalent. True or False?

Copyright (c) 2001, 2002, 2003, 2004, 2005, 2006, 2009, Free Software Foundation, Inc.

Copyright 2001-2006, 2009, Free Software Foundation, Inc.

(c) 2001-2006, 2009, Free Software Foundation, Inc.

A. True

B. False

# LFD103

Question 2.1

A patch is a small incremental change made to the kernel. True or False?

A. True

B. False

Question 2.2

The quiet period overlaps with the merge window. True or False?

A. True

B. False

Question 2.3

How long is the quiet period?

A. 2 weeks

B. 3 weeks

C. 5 weeks

Question 2.4

How many RCs does Linus release before the mainline kernel release?

A. 3

B. 4

C. 7 or 8

Question 2.5

The MAINTAINERS file has information on who maintains a subsystem. True or False?

A. True

B. False

Question 2.6

Several kernel git repositories are hosted on:

A. kernel.org

B. patchwork.kernel.org

C. lore.kernel.org

Question 2.7

All patch emails are sent to Linus. True or False?

A. True

B. False

Question 2.8

New features go into stable releases. True or False?

A. True

B. False

Question 3.1

Which of the following applies to a Commit ID? Only one answer is correct.

A. Tamper proof

B. Fast way to compare two commits

C. Git pulls become fast and efficient

D. Changing commit log changes Commit ID

E. All of the above

Question 3.2

Signed-off is used by (only one answer is correct):

A. Author

B. Commiter

C. Maintainer

D. All of the above

Question 3.3

Acked-by is used to give credit. True or False?

A. True

B. False

Question 3.4

Suggested-by is used to give credit to a patch idea. True or False?

A. True

B. False

Question 3.5

[PATCH v16] indicates that the patch has gone through 16 revisions. True or False?

A. True

B. False

Question 3.6

Select all that apply to the Fixes tag.

A. Indicates the patch fixes issues with a previous patch

B. Includes the Commit ID

C. None of the above

Question 4.1

The purpose of the Linux kernel Contributor Covenant Code of Conduct is to foster (Only one answer is correct):

A. An open and welcoming environment

B. A harassment-free experience for everyone, regardless of age, body size, disability, ethnicity, sex characteristics, gender identity and expression, level of experience, education, socio-economic status, nationality, personal appearance, race, religion, or sexual identity and orientation.

C. All of the above

Question 4.2

Select all examples of behavior that contribute to creating a positive environment:

A. Using welcoming and inclusive language

B. Being respectful of differing viewpoints and experiences

C. Gracefully accepting constructive criticism

D. Focusing on what is best for the community

E. Showing empathy towards other community members

F. None of the above

Question 4.3

Which of the following are examples of unacceptable behavior by participants? Only one answer is correct.

A. The use of sexualized language or imagery and unwelcome sexual attention or advances

B. Trolling, insulting/derogatory comments, and personal or political attacks

C. Public or private harassment

D. Publishing others’ private information, such as a physical or electronic address, without explicit permission

E. Other conduct which could reasonably be considered inappropriate in a professional setting

F. All of the above

Question 4.4

The Linux kernel enforcement statement formalizes the intent to encourage more use of the software. True or False?

A. True

B. False

Question 4.5

The Linux kernel community does not want companies and individuals to use, modify and distribute this software. True or False?

A. True

B. False

Question 4.6

The Linux kernel community views legal action as (only one answer is correct):

A. A last resort

B. Needed only when other community efforts have failed to resolve the problem

C. All of the above

D. None of the above

Question 4.7

The Linux kernel community believes that "Working together we will be stronger". True or False?

A. True

B. False

Question 5.1

What are some options to install Ubuntu/Linux on your development system? Only one answer is correct.

A. Install desktop image on your laptop

B. Install desktop image on your laptop as a dual boot option, alongside another OS

C. Install in a hypervisor such as VirtualBox, VMware, running as a guest

D. All of the above

Question 5.2

Patches should be sent as attachments. True or False?

A. True

B. False

Question 5.3

Responses can be sent in HTML format. True or False?

A. True

B. False

Question 5.4

Always "bottom post" your response. True or False?

A. True

B. False

Question 5.5

Send patches as attachments. True or False?

A. True

B. False

Question 6.1

Which command would you use to check the history of a source file?

Tip: You should run each command, to learn what they do.

A. git log

B. git clone

C. git format-patch

Question 6.2

Which command would you use to check for 2 recent commits by Linus?

Tip: Run each command to learn what they do.

A. git log --author=Linus

B. git log -2 --author=Linus

C. git log author=Linus

Question 6.3

Clone linux-kselftest git repository. Which branch is not present under the linux-kselftest tree?

A. devel

B. fixes

C. master

D. Next

E. For-linus

Question 6.4

Which command is used to switch to a different branch?

A. git checkout -b

B. git checkout <branch name>

C. git branch –a

Question 7.1

What is the ideal number of critical messages you should see in dmesg?

A. 0

B. Under 10

C. Under 20

Question 7.2

What steps are needed to configure grub to stop in the boot menu? Only one answer is correct.

A. Comment out GRUB\_TIMEOUT\_STYLE=hidden

B. Uncomment GRUB\_TIMEOUT and set it to 10: GRUB\_TIMEOUT=10

C. Run update-grub

D. All of the above

Question 7.3

How long will grub wait in the boot menu?

A. Forever

B. Time in seconds set in GRUB\_TIMEOUT

C. 2 \* GRUB\_TIMEOUT value

Question 7.4

Which command shows emergency level kernel messages?

A. dmesg -l emerg

B. dmesg -l info

C. dmesg -l crit

D. dmesg -l err

Question 8.1

When CONFIG\_USB\_AUDIO=m is in your configuration, the USB Audio driver is built into the kernel. True or False?

A. True

B. False

Question 8.2

Configuring drivers as modules helps to (only one answer is correct):

A. Avoid loading modules that might not be needed

B. Keep kernel size small

C. All of the above

D. None of the above

Question 8.3

Which commands are used to manage modules? Select all options that apply.

A. lsmod

B. modprobe

C. rmmod

D. grep

Question 8.4

Describing the code change details in the commit log is useful. True or False?

A. True

B. False

Question 8.5

What does checkpatch.pl do? Only one answer is correct.

A. Checks a patch for coding style compliance

B. Checks a patch for spelling errors

C. Prompts for adding new files to MAINTAINERS files

D. Checks for mismatched “from” and “author” email addresses

E. All of the above

Question 8.6

Make a small change to a file of your choice and run git status. What does git status show?

A. Just the changed file

B. .config file

C. Generated objects

D. Changed file and other non-git artifacts, if any

Question 9.1

What does the checkpatch.pl script not tell you?

A. Checks for errors in the commit log format

B. Checks for coding style errors

C. Checks for spelling errors

D. Checks for wrapped lines and/or lines exceeding 80 characters

E. Checks for kernel interface usage errors and suggests improvements

F. Checks if a patch will apply correctly

Question 9.2

What does the get\_maintainers.pl script tell you?

A. Just the maintainer(s) for the sub-system

B. Just the commit signers for the changed files

C. All recipients for the patch, including maintainers, commit signers, and mailing lists

Question 9.3

Who is responsible for accepting or rejecting patches?

A. Maintainer(s) for the sub-system

B. Commit signers

C. Supporters

D. None of the above

Question 9.4

How long is the minimum wait time before asking for comments on the patch?

A. Two weeks

B. One week

C. One month

D. Two months

E. Don't ping at all. Just waits

Question 9.5

Which tag should be the last tag in the patch?

A. Signed-off-by

B. Tested-by

C. Reported-by

Question 9.6

Which is one thing that will most definitely get your patch rejected?

A. Making changes to address received feedback

B. Responding to review comments

C. Sending patches with mismatched Signed-off-by and From email addresses

D. Asking clarifying questions on received feedback

Question 10.1

Which of the following options would you use to compile a single source file?

A. make path/file.o

B. make path

C. make M=path

Question 10.2

Which of the following options would you use to build a module?

A. make path/file.o

B. make path

C. make M=path

Question 10.3

Using make menuconfig makes it easier to navigate the configuration options and resolve dependencies. True or False?

A. True

B. False

Question 10.4

A tristate module cannot be configured as a built-in or a module or disabled. True or False?

A. True

B. False

Question 10.5

A driver or a module can only be enabled when all the dependencies are met. True or False?

A. True

B. False

Question 11.1

Which of the following rings and bots help validate patches and kernel releases (Select all answers that apply)?

A. 0-day build bot

B. Continuous Integration (CI) rings

C. None of the above

Question 11.2

Which of the following apply to validation on CI rings and build bots? Only one answer is correct.

A. Boot tests

B. Qemu tests

C. Kernel Selftests

D. Compile tests

E. Real hardware

F. Cover a wide range of architectures and configurations

G. All of the above

Question 12.1

Which of the following is correct when it comes to event tracing?

A. Enabling events requires root access

B. “enable” file allows enable/disable events

C. You can enable all events or selectively enable per sub-system events

D. All of the above

Question 12.2

Enabling requires root access. True or False?

A. True

B. False

Question 12.3

Adding debug messages helps debug all problems. True or False?

A. True

B. False

Question 13.1

Which of the following are possible ways to participate in the kernel development process? Only one answer is correct.

A. Write code

B. Improve documentation

C. Test kernel releases

D. Fix bugs

E. Report bugs

F. All of the above

# LFX101X

Question 1: The kernel is defined as:

A.. The graphical user interface on top of the operating system

B.. The glue between the hardware and applications

C.. The software libraries needed to run the system

D. All of the above

Question 2: Which statements are true about the Linux Boot Loader:

A.. It is executed before Linux

B.. It gives us more control on how we boot the system

C.. It can be used to select operating systems or kernels

D.. All of the above

Question 3: If the display manager is not started by default in the default runlevel, you can start the X –Window System by:

A.. Running the startx command from the command-line

B.. Running the xstart command from the command-line

C.. Running the runX command from the command-line

D.. Running the X-begin commnad from the command-line

Question 4: To change your desktop-background file:

A.. Edit the desktop-background file

B.. Right-click on the desktop, select Change Desktop Background and select a wallpaper

C.. Double-click the dektop, select an available wallpaper and click on Save

D.. Try a different Linux distribution

Question 5: For best coordination between multiple Linux systems, you should set the date and the time:

A.. Manually as close as possible to each other

B.. Manually, but the various systems’time only needs to be synchron within a few minutes

C.. Using the Network time Protocol (NTP) so that machines are automatically very close to the same time

D.. Manually every time you boot the system

Question 6: Display settings allow you to change things like:

A.. The date and time

B.. Network settings

C.. Screen resolution and multiple screens configuration

D. Whether or not to use a graphical interface

Question 7: One of the reasons you shold learn text mode operations is:

A.. Your server may not have the overhead for a graphical user interface ( GUI)

B..Linux does not include a graphical user interface(GUI)

C. Aparticular command may not be installed on your system

D.. You are not competent if you can’t do everything from a command line

Question 8: To move around the file system tree from one directory to another you can use:

A.. ls

B. cd

C. ps

D. mv

Question 9: To remove a directory named some\_dir and all if its files, including sub-directories, in that directory, use:

A. rmdir some\_dir

B. rm -f some\_dir

C.rm -rf some\_dir

D. kill some\_dir

Question 10: The Linux manual pages can be read using:

A. manual

B. man

C. doc

D. command /?

Question 11: Many programs have built-in help; to access this, use:

A. The -h or --help option

B. The --info option

C. The -m or --man option

D. The -doc option

Question 12: Which of the following compares two files line by line and reports differences?

A. cp

B. rsync

C. patch

D. diff

Question 13: Which of the following is useful for creating a backup of a disk Master Boot Record (MBR):

A. d2d

B. dd

C. bzip2

D. file

Question 14: In order to execute a Linux command as the root user, what should you prefix it with:

A. su (as in su ls/etc)

B. time (as in time ls /etc)

C. strace (as in strace ls /etc)

D. sudo command (as in sudo ls /etc)

Question 15: The \_\_\_\_ environment variable lists the directories in which the shell looks for executable programs and scripts:

A. $PATH

B. $HOME

C. $PS1

D. $SHELL

Question 16: Which command is used to set the Linux file permissions to make the file named data, readable and writable by the owner and group owner of the file, but not accessible by any others:

A. chown 660 data

B. chmod 660 data

C. chgrp 670 data

D. chmod 777 data

Question 17: An easy to use text-based editor that utilizes on-screen prompts is:

A. edit

B. cat

C. edln

D. nano

Question 18: The command-mode key stroke(s) \_\_\_\_ within vi will delete the characters from the cursor to the end of the world:

A. D

B. dw

C. d$

D. rl

Question 19: Encrypted account passwords are found in the file, \_\_\_\_\_\_\_\_, and are typically encrypted using the \_\_\_\_\_\_\_ algorithm.

A. /etc/passwd; SHA-512

B. /etc/passwd; SSH-512

C. /etc/shadow; SHA-512

D. /etc/shadow; HASH-256

Question 20: The root account:

A. Has authority over the entire system

B. Requires extreme caution when using because small mistakes can lead to disasters

C. Should be used carefully; think before pressing the Enter key and run complex commands in a safe way, first, to ensure mistakes aren’t made

D. All of the above

Question 21: IP address are divided into two parts:

A. Address and octets

B. TCP and IP

C. Network and host

D. Class A and B

Question 22: To confirm that a remote host is online and responding and to measure network latency between machines at the same time, one can use:

A. nslookup

B. ip addr show

C. dig

D. ping

Question 23: How would you use sed to replace all the occurrences of the word “tiger” with “lion” in the file named data?

A. sed ‘s/tiger/lion/’ data

B. sed ‘s/lion/tiger/’ data

C. sed -i ‘s/tiger/lion/g’ data

D. sed -i ‘r/lion/tiger/’ data

Question 24: The command “wc -l some\_file” will print out the number of:

A. lines in some\_file

B. words in some\_file

C. characters in some\_file

D. bytes in some\_file

Question 25: Which of following could you use to check the status of all your printers?

A. status -a

B. lp status -all

C. lprm my-printers

D. lpstat -a

Question 26: Why should we use shell scripts?

A. They combine long, possibly repetitive commands into one simple command

B. They allow you to create new commands and share these procedures among several users

C. They automate tasks and reduce risk of errors

D. All of the above

Question 27: Your shell script uses an “if” statement to see if the word “yes” was entered. This “if” statement looks like:

A. if ($RESPONSE = “yes”) ; then

B. if [ RESPONSE = “yes” ) ; then

C. if [$RESPONSE == “yes”] ; then

D. if ( RESPONSE = “yes”) ; then

Question 28: Your shell script needs to test to see if a directory, document, exists; a way to do this is:

A. [ -e document ]

B. [ document -gt 0 ]

C. [ -d document ]

D. [ -s document ]

Question 29: Which of the following can be used to show which processes are using most of the CPU or memory resources on your system:

A. most

B. big

C. lots

D. top

Question 30: The ssh command provides a way to:

A. Exit your login shell cleanly

B. Silently copy files from one directory to another

C. Connect securely to remote systems

D. Check the process status of your shell