1. What is an operating system?

- ● The software that manages computer hardware and resources
- ○ The collection of files and programs that a user interacts with on a computer system
- ○ The process of running multiple instances of a program on a computer system
- ○ The physical components of a computer system, such as the keyboard, mouse, and monitor

> ✓ **Correct**
> Correct! An operating system is a software that manages a computer's hardware and its resources It enables interaction with hardware to perform useful tasks.

2. Which layer of the Linux system is the core component of the operating system and responsible for memory, processing, and security management?

○ Kernel

3. Which shell command can you use to change the current working directory to your home directory?

1 / 1 point

- ○ cd !
- ○ cd /
- ◉ cd ~
- ○ cd ..

✓ **Correct**
Correct! The tilde (~) is a shortcut for specifying the path to your home directory.

4. What command do you use to open a text file using nano?

1 / 1 point

- ○ nano txt filename.txt
- ○ nano open filename.txt
- ○ open nano filename.txt
- ◉ nano filename.txt

✓ **Correct**
Correct! The nano command is used with the file name to open a text file.

5. Which shell command can you use to display information about mounted file systems?

1 / 1 point

- ◉ df
- ○ head
- ○ cat
- ○ ps

✓ **Correct**
Correct! The df command is a common shell command that displays information about mounted file systems.

6. You can use the touch command for which of the following purposes?

   1 / 1 point

- ● To create a new file
- ○ To change a file's permissions
- ○ To add a string to a file
- ○ To display a file's contents

> ✓ **Correct**
> Correct! You can use the touch command to create a new file or update an existing file's timestamp.

7. Assume you run the command wc contract.txt and receive the following output: 40 185 1302 contract.txt

   1 / 1 point

What does the number "40" indicate about contract.txt?

- ○ Number of words
- ○ Number of spaces
- ● Number of lines
- ○ Number of characters

> ✓ **Correct**
> Correct! The wc command will return, in order, the number of lines, words, and characters in a file. In this example, the output of wc document.txt indicates that contract.txt contains 40 lines, 185 words, and 1,302 characters.

8. Which command prints all lines and line numbers from the file login.txt that contain the word "password"?

1 / 1 point

- ○ tail -l password login.txt
- ◉ grep -n password login.txt
- ○ uniq -c password login.txt
- ○ paste -i password login.txt

> ✓ **Correct**
> Correct! The grep command allows you to specify a pattern and search for lines from the input text that contain a match to the pattern. Add the -n option to the command to also output the line number for each line that contains the pattern.

9. What does the ifconfig command do?

1 / 1 point

- ○ Transfers data to or from a server
- ○ Sends Internet Control Message Protocol requests to a server
- ○ Shows or sets the system's host name
- ◉ Displays information on all the system's network devices

> ✓ **Correct**
> Correct! The ifconfig command stands for Interface configuration. It displays information regarding all your device's communication devices.

10. Which command extracts files from a tar ball archive named tmp.tar?

1 / 1 point

- ○ tar -ca tmp.tar
- ○ tar -vq tmp.tar
- ◉ tar -xf tmp.tar
- ○ tar -tn tmp.tar

> ✓ **Correct**
> Correct! You can use the tar command with the -x option to extract files from an archive.

11. Which of the following is a list of commands that can be interpreted and run by a program?

- ○ Script

12. Assume a variable named therm. Which command will display the value of the therm variable?

○ echo=therm

◉ echo $therm

○ echo therm

○ echo=$therm

✓ **Correct**
Correct! To print a line of text, use the echo command. To print the value of a variable in a command, put a dollar sign ($) before the variable name and do not put a space between the two.

13. Assume you have a file named grocerylist.txt. In the terminal, you want to print only the first 10 lines of the file, and you want to sort these 10 lines alphabetically. Which of the following Bash inputs should you use?

○ sort grocerylist.txt | head

◉ head grocerylist.txt | sort

○ head grocerylist.txt \\> sort

○ sort grocerylist.txt \\> head

✓ **Correct**
Correct! The head command prints the first 10 lines of a file. The sort command prints each line of a file; by default, the sort command will print each line in alphabetical order. In this example, first use the head command on grocerylist.txt. Next, use the pipe operator (|) followed by the sort command to sort the output from head grocerylist.txt alphabetically.

14. Which input can you use to run the pwd command and ls command in parallel?

○ pwd & ls

15. Which cron command removes the current crontab?

◉ crontab -r

○ crontab -u

○ crontab -l

○ crontab -e

✓ **Correct**
Correct! Entering crontab -r on the command line removes the current crontab.ntering crontab -l on the command line lists all the scheduled jobs in the current crontab.