**UNIX Term Test Sample Questions**

**Section 1**

Circle the letter of the one correct answer to each question:

1. Which command will set permissions on a file called **prog1.c** to **rwxrw-r-x** ?

1. chmod 760 prog1.c
2. chmod 755 prog1.c
3. chmod 765 prog1.c
4. chmod 705 prog1.c

2. Which command will add the **minimum** permissions so that all users can add and delete files in directory **dir2** ?

* 1. chmod a+w dir2
  2. chmod a+wx dir2
  3. chmod a+rw dir2
  4. chmod a+rx dir2

3. Which choice best describes the purpose of a pipe ( | )?

* 1. connects stdin of command on the left to stdout of command on the right
  2. connects stdout of command on the left to stdin of command on the right
  3. connects stdout of command on the left to stdout of command on the right
  4. connects stdin of command on the left to stdin of command on the right

4. Which **more** sub-command will find the next occurrence of the string "unix"?

* 1. unix/ (less: support searching through the output interactively)
  2. funix
  3. /unix (doesn’t support)
  4. unixf

5. Which of the following is a relative-to-home pathname?

* 1. ../test/cars
  2. ~user1/test/cars (relative-to-home pathname that starts at the home directory of user1)
  3. /home/test/cars (absolute pathname)
  4. ./test/cars (relative pathname that starts in the current directory and then goes down into the test/cars directory.)

6. Which command will display detailed information about **only** the hidden files and directories in the current directory?

* 1. ls -al | grep "."
  2. ls -ld .\* (ls -d : lists the directory itself (not contents)
  3. ls -al
  4. ls -hl

7. If your current directory is **/home/user1/linux/assigns**, which command will delete **only** ordinary file **xxx.c** from your home directory **/home/user1** ?

* 1. rm ./xxx.c
  2. rm ../../xxx.c
  3. rm ~xxx.c
  4. rm -r xxx.c

8. Which command will rename file **xyz** , in your current directory, to **abc** ?

* 1. ren xyz abc
  2. ln abc xyz
  3. mv xyz abc
  4. cp -r abc xyz

9. With a umask of 016, what will be the default permissions for newly-created directories?

* 1. r w - r w - - - -
  2. - - - - - x r w -
  3. r w x - - x r w -
  4. r w x r w - - - x

10. With a umask of 016, what will be the default permissions for newly-created ordinary files?

* 1. r w - r w - - - -
  2. r w x - - x r w -
  3. r w x r w - - - x
  4. - - - - - x r w -

11. Which command will redirect output to wherever error messages are going?

* 1. echo "Error message" >&2
  2. echo "Error message" 2>
  3. echo "Error message" 2>>
  4. echo "Error message" >2

12. Which command will display only non-hidden filenames in the current directory that do not begin with a lower-case alphabetic?

* 1. ls ![a-z]
  2. echo [!a-z]\*
  3. ls \*[a-z]
  4. echo ?[a-z]

**ls [!a-z]\***

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**Section 2**

Write the shortest single command to perform the following action:

1. Display the contents of ordinary file **numbers** in the current directory**,** sorted numerically**﻿**:

**sort -n numbers**

2. Display all the lines in ordinary file **sports** in the current directory that contain the string "golf"**﻿**:

**grep “golf” sports**

3. Display the absolute path of the current directory:

**pwd**

4. Display the type of file **config** (eg. text or excel) in the current directory:

**file config**

5. Display the online manual page about the **grep** command:

**man grep**

6. Display the absolute path of the **grep** command:

**which**

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**Section 3**

Write the shortest single command to perform the following action:

1. Display all filenames in the current directory that begin with a digit:

2. Below are **some** of the records in file **animals** in your current directory.  Using the records shown in **animals** below, choose the record(s) displayed by the following command line:

**grep "Pa" animals | sort | tail -2**

* 1. Russia Mammal Bear 2013 Male Papa
  2. Japan Fish Koi 2017 Female Swimmer
  3. Paraguay Bird Swan 2003 Female Cutey
  4. Papua Bird Tiger 1997 Male Stripe
  5. Greece Reptile Snake 2005 Female Slimey

3. The **ls** command in the current directory displays only the following ordinary files:

**pgm pgma pgmaa pgmabc pgmxa**

Which filename(s) will the following command display:

**ls ???a**

4. List **all** filenames in the current directory, placing the output into new ordinary file **myfiles** :

5. Delete ordinary file **file4** in the current directory, ensuring that no error messages are displayed **﻿**:

6. Make a copy of directory **dir5** , within your current directory, to your home directory:

7. Copy ordinary file **file8** from the the parent of your current directory to the current directory:

8. Display ordinary file **report** reversing uppercase and lowercase characters, for example "The Apple" should display as "tHE aPPLE":

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**Section 4**

The following diagram is part of a UNIX file system. Names followed by a slash (/) are directories. Your user name is **joe** and your home directory is **/users/joe** . Your current directory is **admin** . You may not change directories to answer the question, and your answer must be a single command or the shortest possible command-line.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  | /users/joe/ | |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| progs/ | |  | acct/ | |  | **admin/** | |
|  |  |  |  |  |  |  |  |
| prog1.java | |  |  |  |  | inventory | |
|  |  | invoices/ | | payroll/ | |  |  |
|  |  |  |  |  |  |  |  |
|  |  | april.invoice | | march.pay | |  |  |

1. Move the file **april.invoice** to **admin** using relative pathnames:

2. Create the directory structure **past/2010** under the **invoices** directory, using absolute pathnames:

3. Copy **inventory** to the home directory of user **sam** , calling it **inv.file ,** using the shortest possible pathnames**:**

4. Create a file in **admin ,** called **pay3 ,** which contains the third record in file **march.pay** using the shortest possible pathnames**:**

5. Display a count of the hidden filenames in the **payroll** directory, using relative-to-home pathnames:

6. Display only the non-hidden filenames in the current directory that consist of 2 or 3 characters, using the shortest possible pathnames: