b. **bob** can list names in the directory

d. bob can rename the file

a. pat can rename the file

c. **bob** can access and write on the file

b. pat can access and write on the file

c. bob can access and write on the file

e. **bob** can list names in the directory

d. **bob** can create a new file in the directory

e. pat can create a new file in the directory

4. User bob is in groups bg1 and bg2. User pat is in group pgg.

-r-xr-xrwx 1 pat bg1 0 Jan 1 1:00 foo/bar

dr-x---wx 2 pat ted 60 Jan 1 1:00 foo

b. root owns both new files

e. you own both new files

remove these four file names:

a. 4

c. root owns new file **a** – you own new file **b**

111 -rw-r--r-- 2 me me 100 Jan 1 1:00 a

111 -rw-r--r-- 2 me me 100 Jan 1 1:00 b

222 -rw-r--r-- 2 me me 100 Jan 1 1:00 c

222 -rw-r--r-- 2 me me 100 Jan 1 1:00 d

d. you own new file **a** – root owns new file **b**

b. 1

-1-

-2-

5 User bob is in groups ball and ba? User pat is in group page

PRINT Name:	LAB Section:	5.	d-wx-w-rwx 2 pat bgl 60 Jan 1 1:00 foo
Test Version: 223 One-Answer Multiple Choice 58 Questions – 35 of 35% Read all the words of these instructions and both sides (back and front) of all pages. Use your full, unabbreviated name on the mark-sense form. Do not abbreviate your name. Put the three-digit Test Version above into NO. OF QUESTIONS and NO. OF STUDENTS Fill in the bubbles with pencil only, no pen. Enter your NAME, Test Version, and answers. Manage your time. Answer questions you know, first. One Answer per question. The answer to the questions below about reading/doing all these test instructions is: Jes		6.	-rwxrwxrwx 1 pat ted 0 Jan 1 1:00 foo/bar a. bob can list names in the directory b. bob can access and write on the file c. bob can create a new file in the directory d. pat can create a new file in the directory e. bob can rename the file User bob is in groups bg1 and bg2. User pat is in group pgg. dr-xrwxrw- 2 pat pgg 60 Jan 1 1:00 foo
1. Did you read all the words of the test instructions on page one? a. Tak (Yes - Polish) b. Sim (Yes - Portuguese) c. Taip (Yes - Lithuanian) d. Igen (Yes - Hungarian) e. Jes (Yes - Esperanto)			 a. bob can access and write on the file b. bob can create a new file in the directory c. pat can rename the file d. pat can access and write on the file e. bob can list names in the directory
 My three-digit Lab Section number is: a. The section number of my weekly 2-hour lab period. b. My lecture room number, e.g. T130. c. My lab room number, e.g. B384. d. My lecture section number 400 or 410. e. The Test Version number printed in the top left corner. Lear bob is in groups bg1 and bg2. Hear path is in group pgg. 		7.	User bob is in groups bg1 and bg2. User pat is in group pgg. dr-x-wx 2 pat bg1 60 Jan 1 1:00 foo -rwxrwxr-x 1 pat ted 0 Jan 1 1:00 foo/bar a. pat can rename the file b. pat can create a new file in the directory c. bob can create a new file in the directory
 User bob is in groups bg1 and bg2. User pat is in group pgg. drw-rw-rwx 2 pat bg1 60 Jan 1 1:00 foo -rwxrwxrwx 1 pat ted 0 Jan 1 1:00 foo/bar a. pat can rename the file belt can list names in the directory. 		8.	 d. bob can list names in the directory e. bob can access and write on the file If you run this as you, to create two new files: \$ sudo touch a >b a. this command fails due permissions

9. If files occupy one disk block, how many disk blocks will the system free up if I

c. 3

d. 0

e. 2

```
10. User bob is in groups bg1 and bg2. User pat is in group pgg.
   dr-xrw-rwx 2 pat bg1 60 Jan 1 1:00 foo
   -rwxrwxrwx 1 pat ted 0 Jan 1 1:00 foo/bar
```

- a. bob can rename the file
- b. pat can create a new file in the directory
- c. pat can rename the file
- d. bob can access and write on the file
- e. **bob** can list names in the directory
- 11. If files occupy one disk block, how many disk blocks will the system free up if I remove these four file names:

-3-

```
111 -rw-r--r-- 1 me me 100 Jan 1 1:00 a
222 -rw-r--r-- 3 me me 100 Jan 1 1:00 b
222 -rw-r--r-- 3 me me 100 Jan 1 1:00 c
222 -rw-r--r-- 3 me me 100 Jan 1 1:00 d
a. 2
            b. 1
                        c. 0
                                                 e. 3
```

12. User bob is in groups bg1 and bg2. User pat is in group pgg.

```
d--xrwx--x 2 bob ted 60 Jan 1 1:00 foo
---rw--w- 1 bob bg1 0 Jan 1 1:00 foo/bar
```

- a. bob can access and write on the file
- b. pat can access and write on the file
- c. **bob** can list names in the directory
- d. **bob** can create a new file in the directory
- e. pat can rename the file
- 13. User bob is in groups bg1 and bg2. User pat is in group pgg.

```
d-w-rw---x 2 bob ted 60 Jan 1 1:00 foo
--w-rwxrwx 1 pat bql 0 Jan 1 1:00 foo/bar
```

- a. bob can access and write on the file
- b. pat can rename the file
- c. **bob** can create a new file in the directory
- d. **bob** can list names in the directory
- e. pat can access and write on the file
- 14. User bob is in groups bg1 and bg2. User pat is in group pgg.

```
dr-xrwx-wx 2 pat pgg 60 Jan 1 1:00 foo
-r-xrwxr-x 1 bob bg2 0 Jan 1 1:00 foo/bar
```

- a. pat can rename the file
- b. pat can access and write on the file
- c. **bob** can list names in the directory
- d. bob can access and write on the file
- e. **bob** can create a new file in the directory

```
15. If files occupy one disk block, how many disk blocks will the system free up if I
    remove these four file names:
```

-4-

```
111 -rw-r--r-- 1 me me 100 Jan 1 1:00 a
222 -rw-r--r-- 1 me me 100 Jan 1 1:00 b
333 -rw-r--r-- 1 me me 100 Jan 1 1:00 c
444 -rw-r--r-- 1 me me 100 Jan 1 1:00 d
a. 2
            b. 0
                        c. 1
                                     d. 3
                                                  e. 4
```

16. User bob is in groups bg1 and bg2. User pat is in group pgg.

```
d-wxr-xrw- 2 bob pgg 60 Jan 1 1:00 foo
-r-xrwxr-x 1 bob bg1 0 Jan 1 1:00 foo/bar
```

- a. pat can access and write on the file
- b. bob can access and write on the file
- c. **bob** can create a new file in the directory
- d. pat can rename the file
- e. **bob** can list names in the directory
- 17. User bob is in groups bg1 and bg2. User pat is in group pgg.

```
dr-xr-xrwx 2 pat bg1 60 Jan 1 1:00 foo
-rwxrwxr-x 1 pat ted 0 Jan 1 1:00 foo/bar
```

- a. pat can create a new file in the directory
- b. bob can access and write on the file
- c. pat can rename the file
- d. **bob** can list names in the directory
- e. **bob** can rename the file
- 18. Dereference the following symlink **bar** into its equivalent absolute path:

```
\ln -s .../../a/../b/.../b/foo /tmp/a/b/bar
```

- a. /tmp/b/bar
 - b. /tmp/a/b/bar
- c. /tmp/a/foo

- d. /tmp/a/b/foo
- e. /tmp/foo

19. User bob is in groups bg1 and bg2. User pat is in group pgg.

```
dr---wx--x 2 bob ted 60 Jan 1 1:00 foo
--w--w-r-x 1 bob bg2 0 Jan 1 1:00 foo/bar
```

- a. bob can list names in the directory
- b. **bob** can access and write on the file
- c. **bob** can create a new file in the directory
- d. pat can rename the file
- e. pat can access and write on the file
- 20. User bob is in groups bg1 and bg2. User pat is in group pgg.

```
d--x---x 2 pat pgg 60 Jan 1 1:00 foo
-r-xrwx-w- 1 bob bq1 0 Jan 1 1:00 foo/bar
```

- a. **bob** can list names in the directory
- b. pat can access and write on the file
- c. pat can rename the file
- d. bob can access and write on the file
- e. bob can create a new file in the directory

```
21. Dereference the following symlink bar into its equivalent absolute path:
```

```
ln -s ../b/../a/../foo /tmp/a/b/bar
```

- a. /tmp/a/b/bar
- b. /tmp/b/bar

-5-

c. /tmp/foo

- d. /tmp/a/foo
- e. /tmp/b/foo

22. If files occupy one disk block, how many disk blocks will the system free up if I remove these four file names:

```
111 -rw-r--r-- 1 me me 100 Jan 1 1:00 a

222 -rw-r--r-- 1 me me 100 Jan 1 1:00 b

333 -rw-r--r-- 1 me me 100 Jan 1 1:00 c
```

333 -rw-r--r-- 1 me me 100 Jan 1 1:00 C 444 -rw-r--r-- 2 me me 100 Jan 1 1:00 d a. 4 b. 1 c. 0 d. 3

a. 4 b. 1

If files eccury one disk block h

e. 2

e. 3

e. 3

23. If files occupy one disk block, how many disk blocks will the system free up if I remove these four file names:

```
111 -rw-r--r- 1 me me 100 Jan 1 1:00 a 222 -rw-r--r- 1 me me 100 Jan 1 1:00 b 444 -rw-r--r- 2 me me 100 Jan 1 1:00 c 444 -rw-r--r- 2 me me 100 Jan 1 1:00 d a.\ 0 \qquad b.\ 2 \qquad c.\ 4 \qquad d.\ 1
```

24. If files occupy one disk block, how many disk blocks will the system free up if I remove these four file names:

```
111 -rw-r--r-- 2 me me 100 Jan 1 1:00 a
222 -rw-r--r-- 2 me me 100 Jan 1 1:00 b
333 -rw-r--r-- 2 me me 100 Jan 1 1:00 c
444 -rw-r--r-- 2 me me 100 Jan 1 1:00 d
a. 0 b. 1 c. 4 d. 2
```

25. User bob is in groups bg1 and bg2. User pat is in group pgg.

```
d-wxrwx-w- 2 pat ted 60 Jan 1 1:00 foo
-r-xr-xrwx 1 pat bg1 0 Jan 1 1:00 foo/bar
```

- a. pat can rename the file
- b. pat can access and write on the file
- c. **bob** can access and write on the file
- d. **bob** can list names in the directory
- e. bob can create a new file in the directory

26. User bob is in groups bg1 and bg2. User pat is in group pgg.

```
dr---wx--x 2 bob ted 60 Jan 1 1:00 foo

-r-xrwxrwx 1 pat bg1 0 Jan 1 1:00 foo/bar
```

- a. **bob** can create a new file in the directory
- b. pat can access and write on the file
- c. **bob** can list names in the directory
- d. pat can rename the file
- e. bob can access and write on the file

```
27. User bob is in groups bg1 and bg2. User pat is in group pgg.
```

```
d---rwx--x 2 pat pgg 60 Jan 1 1:00 foo
--w---rwx 1 bob bg1 0 Jan 1 1:00 foo/bar
```

- a. **bob** can create a new file in the directory
- b. **bob** can list names in the directory
- c. bob can access and write on the file
- d. pat can access and write on the file
- e. pat can rename the file
- 28. If files occupy one disk block, how many disk blocks will the system free up if I remove these four file names:

-6-

```
111 -rw-r--r-- 2 me me 100 Jan 1 1:00 a
111 -rw-r--r-- 2 me me 100 Jan 1 1:00 b
222 -rw-r--r-- 3 me me 100 Jan 1 1:00 c
222 -rw-r--r-- 3 me me 100 Jan 1 1:00 d
a. 2 b. 4 c. 1 d. 3 e. 0
```

29. User bob is in groups bg1 and bg2. User pat is in group pgg.

```
dr---wx--- 2 pat bg2 60 Jan 1 1:00 foo
-rw-rw-r-x 1 pat ted 0 Jan 1 1:00 foo/bar
```

- a. pat can create a new file in the directory
- b. bob can access and write on the file
- c. pat can rename the file
- d. **bob** can list names in the directory
- e. bob can rename the file
- 30. User bob is in groups bg1 and bg2. User pat is in group pgg.

```
d--xrwx-wx 2 bob ted 60 Jan 1 1:00 foo
-r-x-w-r-x 1 bob bg2 0 Jan 1 1:00 foo/bar
```

- a. pat can rename the file
- b. **bob** can list names in the directory
- c. **bob** can access and write on the file
- d. pat can access and write on the file
- e. bob can create a new file in the directory
- 31. User bob is in groups bg1 and bg2. User pat is in group pgg.

```
d--xr-x-w- 2 bob pgg 60 Jan 1 1:00 foo

--w---r-x 1 bob bg2 0 Jan 1 1:00 foo/bar
```

- a. pat can access and write on the file
- b. **bob** can list names in the directory
- c. **bob** can create a new file in the directory
- d. pat can rename the file
- e. bob can access and write on the file

- 32. User bob is in groups bg1 and bg2. User pat is in group pgg. d--xr---x 2 bob ted 60 Jan 1 1:00 foo -r-x-w-rwx 1 pat bg2 0 Jan 1 1:00 foo/bar
 - a. pat can rename the file

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- b. bob can access and write on the file
- c. **bob** can list names in the directory
- d. pat can access and write on the file
- e. **bob** can create a new file in the directory
- 33. User bob is in groups bg1 and bg2. User pat is in group pgg. drw---x--- 2 pat bg2 60 Jan 1 1:00 foo -r----w- 1 pat ted 0 Jan 1 1:00 foo/bar
 - a. pat can create a new file in the directory
 - b. **bob** can list names in the directory
 - c. **bob** can rename the file
 - d. bob can access and write on the file
 - e. pat can rename the file
- 34. User bob is in groups bg1 and bg2. User pat is in group pgg. dr-xrwx--x 2 pat pgg 60 Jan 1 1:00 foo --w---r-x 1 bob bg2 0 Jan 1 1:00 foo/bar
 - a. pat can access and write on the file
 - b. **bob** can list names in the directory
 - c. **bob** can access and write on the file
 - d. **bob** can create a new file in the directory
 - e. pat can rename the file
- 35. User bob is in groups bg1 and bg2. User pat is in group pgg. d--x---w- 2 pat ted 60 Jan 1 1:00 foo --w-r-xrwx 1 pat bg2 0 Jan 1 1:00 foo/bar
 - a. pat can rename the file
 - b. **bob** can create a new file in the directory
 - c. bob can access and write on the file
 - d. pat can access and write on the file
 - e. **bob** can list names in the directory
- 36. User bob is in groups bg1 and bg2. User pat is in group pgg. d-wx--x--x 2 bob ted 60 Jan 1 1:00 foo -r-xr-xrwx 1 pat bg2 0 Jan 1 1:00 foo/bar
 - a. bob can access and write on the file
 - b. **bob** can list names in the directory
 - c. pat can access and write on the file
 - d. bob can create a new file in the directory
 - e. pat can rename the file

- 37. User bob is in groups bg1 and bg2. User pat is in group pgg. d--x--xrw- 2 bob pgg 60 Jan 1 1:00 foo
 - -r-xrwx-w- 1 bob bg2 0 Jan 1 1:00 foo/bar
 - a. pat can rename the file

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- b. pat can access and write on the file
- c. **bob** can list names in the directory
- d. bob can access and write on the file
- e. bob can create a new file in the directory
- 38. If files occupy one disk block, how many disk blocks will the system free up if I remove these four file names:

-8-

```
111 -rw-r--r-- 1 me me 100 Jan 1 1:00 a
222 -rw-r--r-- 2 me me 100 Jan 1 1:00 b
333 -rw-r--r-- 2 me me 100 Jan 1 1:00 c
444 -rw-r--r-- 1 me me 100 Jan 1 1:00 d
a. 2
            h. 1
                       c. 3
                                                 e. 0
```

- 39. User bob is in groups bg1 and bg2. User pat is in group pgg.
 - d-w---xr-x 2 pat ted 60 Jan 1 1:00 foo -rwxr-xrwx 1 pat bg2 0 Jan 1 1:00 foo/bar

 - a. bob can rename the file
 - b. **bob** can create a new file in the directory
 - c. pat can access and write on the file
 - d. **bob** can list names in the directory
 - e. bob can access and write on the file
- 40. User bob is in groups bg1 and bg2. User pat is in group pgg.

```
dr--r-x-w- 2 bob pgg 60 Jan 1 1:00 foo
-rwxrwxr-x 1 bob bg2 0 Jan 1 1:00 foo/bar
```

- a. **bob** can access and write on the file
- b. pat can rename the file
- c. pat can access and write on the file
- d. **bob** can create a new file in the directory
- e. **bob** can list names in the directory
- 41. User bob is in groups bg1 and bg2. User pat is in group pgg.

```
d-wx-w-rwx 2 pat bg2 60 Jan 1 1:00 foo
-rwxrwxrwx 1 pat ted 0 Jan 1 1:00 foo/bar
```

- a. **bob** can list names in the directory
- b. pat can rename the file
- c. bob can access and write on the file
- d. **bob** can create a new file in the directory
- e. **bob** can rename the file

e. 1

42. User bob is in groups bg1 and bg2. User pat is in group pgg. d-wx---rw- 2 bob ted 60 Jan 1 1:00 foo ---rwxrwx 1 bob bg2 0 Jan 1 1:00 foo/bar

-9-

- *a.* **pat** can rename the file
- b. bob can access and write on the file
- c. **bob** can list names in the directory
- d. **bob** can create a new file in the directory
- e. pat can access and write on the file
- 43. User bob is in groups bg1 and bg2. User pat is in group pgg.

dr-x-wx--x 2 bob ted 60 Jan 1 1:00 foo -r-x-w-r-x 1 bob bg1 0 Jan 1 1:00 foo/bar

- a. bob can access and write on the file
- b. **bob** can create a new file in the directory
- c. pat can rename the file
- d. bob can list names in the directory
- e. pat can access and write on the file
- 44. User bob is in groups bg1 and bg2. User pat is in group pgg.

d-w-rwx-wx 2 bob ted 60 Jan 1 1:00 foo -r-xrwxrwx 1 pat bg2 0 Jan 1 1:00 foo/bar

- a. bob can access and write on the file
- b. pat can access and write on the file
- c. **bob** can list names in the directory
- d. pat can rename the file
- e. bob can create a new file in the directory
- 45. If files occupy one disk block, how many disk blocks will the system free up if I remove these four file names:

111 -rw-r--r-- 3 me me 100 Jan 1 1:00 a

- 111 -rw-r--r-- 3 me me 100 Jan 1 1:00 b
- 222 -rw-r--r-- 3 me me 100 Jan 1 1:00 c
- 222 -rw-r--r-- 3 me me 100 Jan 1 1:00 d

a. 4 b. 3 c. 2

46. User bob is in groups bg1 and bg2. User pat is in group pgg.

dr-xr-x-w- 2 bob pgg 60 Jan 1 1:00 foo

-r-xrwxr-x 1 bob bg1 0 Jan 1 1:00 foo/bar

- a. pat can rename the file
- b. pat can access and write on the file
- c. bob can access and write on the file
- d. **bob** can create a new file in the directory
- e. **bob** can list names in the directory

47. If files occupy one disk block, how many disk blocks will the system free up if I remove these four file names:

-10-

```
111 -rw-r--r-- 2 me me 100 Jan 1 1:00 a
```

- 222 -rw-r--r 1 me me 100 Jan 1 1:00 b
- 333 -rw-r--r-- 2 me me 100 Jan 1 1:00 c
- 333 -rw-r--r-- 2 me me 100 Jan 1 1:00 d

a. 4 b. 0 c. 2 d. 3

48. User bob is in groups bg1 and bg2. User pat is in group pgg.

dr-xrwx-wx 2 pat ted 60 Jan 1 1:00 foo
-r-xr-xrwx 1 pat bg2 0 Jan 1 1:00 foo/bar

1 M AIWA I pae byl 0 can I I.00

- a. pat can access and write on the file
- b. pat can create a new file in the directory
- c. **bob** can access and write on the file
- d. bob can rename the file
- e. bob can list names in the directory
- 49. Dereference the following symlink **bar** into its equivalent absolute path:

- a. /tmp/a/b/bar b.
- b. /tmp/b/foo
- c. /tmp/a/foo

e. 1

- d. /tmp/foo
- e. /tmp/b/bar
- 50. User bob is in groups bg1 and bg2. User pat is in group pgg.

d--xr---x 2 bob ted 60 Jan 1 1:00 foo

--w--w-r-x 1 bob bg1 0 Jan 1 1:00 foo/bar

- a. **bob** can list names in the directory
- b. bob can create a new file in the directory
- c. pat can access and write on the file
- d. pat can rename the file
- e. **bob** can access and write on the file
- 51. User bob is in groups bg1 and bg2. User pat is in group pgg.

d-wx---w- 2 pat pgg 60 Jan 1 1:00 foo

-rwxrwxr-x 1 bob bg2 0 Jan 1 1:00 foo/bar

- a. pat can access and write on the file
- b. bob can list names in the directory
- c. **bob** can create a new file in the directory
- d. pat can rename the file
- e. bob can access and write on the file
- 52. Dereference the following symlink **bar** into its equivalent absolute path:

ln -s ../b/../../a/./foo /tmp/a/b/bar

- a. /tmp/foo
- b. /tmp/b/bar
- c. /tmp/a/foo

- d. /tmp/b/foo
- e. /tmp/a/b/bar

- 53. User bob is in groups bg1 and bg2. User pat is in group pgg. dr-x-wx--x 2 bob ted 60 Jan 1 1:00 foo -r-xr-xrwx 1 pat bql 0 Jan 1 1:00 foo/bar
 - a. pat can rename the file
 - b. **bob** can create a new file in the directory
 - c. **bob** can list names in the directory
 - d. pat can access and write on the file
 - e. bob can access and write on the file
- 54. User bob is in groups bg1 and bg2. User pat is in group pgg. drw----x 2 pat ted 60 Jan 1 1:00 foo --w--w-r-x 1 pat bg1 0 Jan 1 1:00 foo/bar
 - a. pat can access and write on the file
 - b. **bob** can create a new file in the directory
 - c. bob can access and write on the file
 - d. **bob** can list names in the directory
 - e. bob can rename the file
- 55. User bob is in groups bg1 and bg2. User pat is in group pgg. drw-r-xrwx 2 pat bg1 60 Jan 1 1:00 foo -rwxrwxr-x 1 pat ted 0 Jan 1 1:00 foo/bar
 - a. bob can rename the file
 - b. bob can list names in the directory
 - c. pat can create a new file in the directory
 - d. bob can access and write on the file
 - e. pat can rename the file
- 56. User bob is in groups bg1 and bg2. User pat is in group pgg. d-w---xr-- 2 pat ted 60 Jan 1 1:00 foo -rwxrwxrwx 1 pat bg2 0 Jan 1 1:00 foo/bar
 - a. bob can access and write on the file
 - b. pat can access and write on the file
 - c. bob can rename the file
 - d. **bob** can list names in the directory
 - e. bob can create a new file in the directory
- 57. User bob is in groups bg1 and bg2. User pat is in group pgg.

d--x-wx--- 2 bob pgg 60 Jan 1 1:00 foo

- -r-x-w-r-x 1 bob bg1 0 Jan 1 1:00 foo/bar
- a. **bob** can create a new file in the directory b. **bob** can list names in the directory
- c. pat can rename the file
- d. bob can access and write on the file
- e. pat can access and write on the file

- 58. Did you read all the words of the test instructions on page one?
 - a. Sim (Yes Portuguese)
- b. Jes (Yes Esperanto)
- c. Igen (Yes Hungarian)
- d. Taip (Yes Lithuanian)

e. Tak (Yes - Polish)