

BALLARI INSTITUTE OF TECHNOLOGY & MANAGEMENT

(Autonomous Institute under Visvesvaraya Technological University, Belagavi)

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Course Code

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Third Semester B.E. Degree Examinations, April/May 2023

UNIX SHELL PROGRAMMING

Duration: 2 hr

Max. Marks: 100

- Note:** 1. All questions are compulsory 2. Each question carries 1 mark 3. Use only black ball point pen
4. Darkening two circles for the same question marks the answer invalid
5. Damaging/overwriting using whiteners on the OMR are strictly prohibited.

Q. NoQuestion

- In which language UNIX is written?
A) C B) C++ C) JAVA D) PYTHON
- Which of the following is not a feature of Unix?
A) Multiuser B) Multitasking C) Easy to use D) Portability
- Which of the following is not a part of all the versions of Unix?
A) System Calls B) Graphical user interface C) Kernel and Shell D) Commands and utilities
- Which part of the Unix operating system interacts with the hardware?
A) Kernel B) Shell C) Vi editor D) Application program
- Which command is used to display the documentation of commands in Unix?
A) man B) whatis C) help D) search
- Which command is used for listing files in a directory?
A) list B) ls C) ps D) wc
- Which Unix command is used for counting words, lines, and characters in a file?
A) count B) wc C) ls D) man
- Which of the following cannot be performed by cat command?
A) appending file B) deleting files C) creating files D) displaying files
- Which command is used by the user to change their login password in UNIX?
A) man B) reset C) passwd D) password
- Users communicate with the kernel through a program known as the
A) Kernel B) Shell C) Operating System D) Unix
- Which of the following is not a type of shell?
A) C shell B) Korn shell C) Bourne shell D) Perl shell
- Which command is used to check calendar?
A) check-calendar B) cal C) CAL D) calendar
- The Unix shell is both _____ and _____ language.
A) scripting, interpreter B) high level, low level C) interactive, responsive D) interpreter, executing
- Which editor is used by the Unix system to edit files?
A) word B) notepad C) notepad++ D) vi
- Which Unix command is used for changing the current directory?
A) cp B) cd C) pwd D) rm

16. Which of the following commands is used to display your working directory?
 A) dir B) pwd C) path D) prompt \$p\$g
17. The cat command is used to
 A) Capture a file B) Display a file C) Print a file D) Copy a file
18. Which command is used to count just the number of characters in a file?
 A) \$ wc B) \$ wc-l C) \$ wc -wc D) \$ wc -c
19. Which of the following commands can be used to get information about yourself?
 A) who am i B) who C) pwd D) which
20. Which of the following commands is used to list all the attributes of a file?
 A) \$ ls-l B) \$ lp-a C) \$ dir D) \$ tr
21. How long can a UNIX filename be?
 A) 255 Characters B) 8 Characters C) 8 DIGITS D) None of the above
22. State a reason for not having a filename beginning with a hyphen.
 A) Difficult to remove B) No difficulties C) Filename should not start with hyphen D) Difficult to edit
23. Can the files note and Note coexist in the same directory?
 A) Yes B) No
24. Frame **cd commands** to change from:/var/spool/lp/admins to/var/spool/mail
 A) \$cd ../../mail B) \$cd /mail C) \$cd mail D) All of the above
25. Can you execute any command in /sbin and /usr/sbin by using the absolute pathname?
 A) No B) Yes – some commands
26. How do you run **ls** to mark directories and executables separately,
 A) \$ls -Fa B) \$ls -F C) \$ls -l - F D) \$ls -x
27. What will **cat foo foo foo** display?
 A) Display the contents of file foo 3 times B) Display the Contents of file foo C) It will not display any output D) It stores the output in file foo
28. A file contains nonprintable characters. How do you view them?
 A) \$ ls -a filename B) \$ ls -la filename C) \$cat -v filename D) \$cat -n filename
29. How will you copy a directory structure **bar1 to bar2**?
 A) \$ cp bar1 bar2 B) \$ cp -r bar1 bar2 C) \$ cp -l bar1 bar2 D) \$ cp -R bar1 bar2
30. A file contains nonprintable characters. How do you view them?
 A) \$ ls -a filename B) \$ ls -la filename C) \$ ls -la filename D) \$ cat -n filename
31. What are the two types of **Regular files**?
 A) Text files and Binary files B) Ordinary file and filename C) Character and text file D) None of the above
32. What are the two types of **Device files**?
 A) Text files and device file B) Block Device and Character Device C) Block and Stream file D) None of the above
33. The directory file contains ----- and ----- entries.
 A) Filename and inode files B) Filename and no. of files C) Filename and Count of files D) Filename and no. of blocks occupied

34. Which variable displays the Home directory of a user?
 A) \$ echo HOME B) \$ echo \$HOME C) \$ echo \$home D) All of the above
35. The command **pwd** stands for
 A) Present working Directory B) Print working Directory C) Both A and B D) None of the above
36. The output of the **\$/bin/date** command looks like:
 A) 31/12/2022 B) Dec. 31, 2022 C) Wed Dec 31 10:44:22 IST 2022 D) None of the Above
37. In a relative pathname **.** represents ----- and **..** represents -----
 A) Current and Parent B) Parent and Current C) Nothing D) Root and Home
38. What happens when we execute **\$ ls -a**?
 A) Displays all files starting with a B) Displays all the hidden files C) Displays all the file attributes D) Displays long listing of files
39. What will happen when you execute the command **\$ rm -rf**
 A) Forcefully remove the file B) Interactive way of removing files C) Stores output in the file D) All of the above
40. What you will observe when you execute the command **\$ mv chap chap1**
 A) It renames file chap by chap1 B) Copy the contents of file chap to chap1 C) No output is displayed D) All of the above
41. Show the octal representation for the permission string **rwxr-xrw-**
 A) 756 B) 777 C) 765 D) 766
42. What will the permissions string look like for the octal value **567**?
 A) rwxrwxrwx B) r-xrw-rwx C) rw-rwxrwx D) rw-rwxr--
43. If a file's permissions are **000**, can the superuser still read and write it?
 A) Yes B) No
44. When you remove the write permission of a file from group and others, can the group and other users write to the file?
 A) Yes B) No
45. Is it possible to create a directory in the system directories **/bin and /tmp**?
 A) Yes B) No
46. How do you display **the inode** number of a file?
 A) \$ ls -i B) \$ls -li C) \$ls -a D) \$ls -F
47. Where are the UID and GID of a file stored?
 A) /etc/passwd B) /passwd C) /etc/password D) All of the above
48. What the command **Schgrp -R project *** do?
 A) Change the group for the project B) Change the group ownership to all files but doesn't include hidden files C) Changes the group ownership to all the files including hidden files. D) Changes group ownership to all the files
49. When you invoke **\$ ls -l foo** the access time of foo changes. True or false?
 A) True B) False
50. When you execute the command **\$ ls -l**, initially it displays Total --. What it is?
 A) Total Space in terms of Blocks B) Number C) Total No. of Bytes D) None of the Above

51. The character **c** in the **first** column represents when we execute the command **\$ ls - l**
 A) Ordinary file B) Directory file C) Character Device file D) Block Device file
52. What is the output of the command: **\$ chmod +x chap1 file1 search.c**
 A) All the three files are readable and writable
 B) All the three files are readable.
 C) All the three files are writable
 D) All the three files are executable.
53. The command **\$ chmod -R 755.** means?
 A) Works on regular files
 B) Works on Directory files
 C) Works on executable files
 D) Works on all files including hidden files
54. What is the syntax of **chown** command?
 A) \$chown options owner [:group] file(s)
 B) \$chown options owner file(s)
 C) \$chown owner file(s)
 D) \$chown owner new owner file(s)
55. Name three ways of exiting a vi session after saving your work.
 A) :x, :w, :z B) :x, :wq, :ZZ C) :x, :q, :Zz D) All of the above
56. In the current line, how do you take your cursor to the **End** of the line
 A) By pressing \$ B) By pressing 0 C) By pressing 1\$ D) By pressing \$\$
57. How do you save the **current line** to a **separate file**?
 A) :W filename B) :w filename C) :wq filename D) All of the above
58. How do you **non-interactively** and **globally** replace Internet with Web in all lines of a file?
 A) B) C) :1,\$s/Internet/Web D) :1,\$s/Internet/Web/:1,\$s/Internet/Web/g :1,ns/Internet/Web/gc
59. How will you scroll **half page** forward in vi Editor?
 A) By pressing <ctrl-f> in ex mode C) By pressing <ctrl-b> in Command mode
 B) By pressing <ctrl-d> in command mode D) By pressing <ctrl-u> in command mode
60. What is the use of the characters **dd** in command mode of **vi Editor**?
 A) To copy line B) To delete line C) To delete current line D) All of the above
61. How do you remove only the **hidden files** of your directory?
 A) rm .!.* B) rm * C) rm *.* D) rm .
62. Match the filenames **chapa, chapb, chapc, chapx, chapy, and chapz** with a wild-card expression.
 A) \$ls chap[a-cx-z] C) \$ chapachapbchapcchapd..
 B) ls chapachapbchapc... D) None of these
63. Is the wild-card expression **[3-h]*** valid?
 A) Yes B) No
64. Devise a command that copies all files named **chap01, chap02, chap03**, and so forth through chap26 to the parent directory.
 A) \$ cp chap0[1-9] chap1[0-9] chap2[0-6] B) cp CHAP*.* C) \$ cp chap*.* D) \$ cp chap0[1-26]
65. Frame wild-card patterns to select all the files where the last character is not numeric
 A) \$ ls *![0-9] B) \$ ls *![0-9]????* C) ls *. * D) \$ ls *[0-9]
66. Name the three sources and destinations of standard input and standard output.
 A) The terminal, file, B) The terminal C) file, and pipe D) None of the above and pipe
67. Is the output of the command **cat foo1 foo2 >/dev/tty** directed to the standard output?
 A) Yes B) No
68. How do you save your entire home directory structure, including the hidden files, in a separate file?
 A) \$ ls \$HOME > foo B) \$echo \$HOME C) \$ ls -Lr \$home D) \$ ls -lRa \$HOME > foo

69. Explain what these wild-card patterns \$ ls *.!s][!h] match ?
 A) Filenames not ending with .sh B) All filenames C) No filenames D) None
70. Where the **Exit status** of a command is stored?
 A) It is available in \$0 B) It is available in \$\$ C) It is available in \$? D) It is available \$#
71. During the file related tests in the shell programming **-f file** represents
 A) File exists and regular file B) File exists C) Option to the file D) None
72. [-x chap.c] in a file test represents?
 A) An error B) An executable file C) An ordinary file D) Not executable file
73. The statement **String stg is not a null string** in a shell program is represented by:
 A) -n stg B) stg C) -z stg D) stg -n
74. Complete Set of Positional parameters as a single string is represented by
 A) \$* B) \$0 C) \$# D) \$\$
75. The positional parameter \$\$ represents
 A) \$ Variable is evaluated B) PID of the current shell C) PID of the last background job D) PID of the fg job
76. The positional parameters \$1, \$2, ... represents
 A) Command line Arguments B) Filenames C) Command D) None
77. The Command **\$ grep director manager employee emp.lst** executes or not?
 A) No B) Yes
78. How does it treat the * when used as an argument to a command (like echo *)?
 A) It will not display anything B) Wrong argument C) A * is expanded to match all filenames in the current directory. D) Wrong option
79. What is the significance of the command **ls *.*?**
 A) Displays all files B) Displays no files C) Displays only files starts with * D) Displays files where dot (.) occurs in the filename
80. The commands **cat** and **wc**, when used without arguments, don't seem to do anything. What does that indicate?
 A) They expect input from standard input, the terminal by default B) Commands will not work C) It reads input from file D) Output of cat command is used as input in wc command
81. A process is an instance of _____ program.
 A) waiting B) executing C) terminated D) halted
82. Programs and process are synonymous.
 A) Yes B) No
83. Which data structure is used to store information about a process?
 A) Process Control Block B) Program Control Block C) Queue D) Array
84. Each process is identified by a unique integer called
 A) PID B) PPID C) PTID D) TID
85. Every process has a parent process
 A) Yes B) No
86. To know the PID of your current shell, which command will be used?
 A) echo \$\$ B) echo \$ C) \$PATH D) \$SHELL

87. Which of the following attribute is not shown by **ps** command?
A) PID B) PPID C) tty D) size
88. Which option is used by **ps** command to get a detailed listing of process attributes?
A) -u B) -f C) -l D) -x
89. Which of the following system call is used for creating a new process?
A) read B) fork C) wait D) new
90. Which command is used to display the top of the file?
A) cat B) head C) grep D) more
91. What is the command to create a hard link
A) ls B) ln C) li D) ls -h
92. What is the command to create a soft link
A) ls -l C) ls C) ln D) ln -s
93. What is the command to reduce the priority of a process
A) nice B) signal C) kill D) nohup
94. Which of the following command is used to suspend a job?
A) ctrl - Z B) ctrl -Q C) bg D) \$
95. Which command will push the current foreground job to the background?
A) bg B) fg C) ctrl -Z D) kill
96. The command **bg %2** is valid
A) True B) False
97. By default, how many lines are displayed using the **head** command?
A) 5 B) 10 C) 4 D) 20
98. The expression **cut -c -3 emp.lst** will cut columns number ____
A) 0 B) 1 C) 3 D) 1-3
99. Which option is used when we've to sort files containing only numbers?
A) -n B) -a C) -d D) -u
100. Which one of the following commands will be used for searching "director" in emp.lst?
A) \$ grep "director" B) \$ grep "director" emp.lst
C) \$ grep -director emp.lst D) \$ grep -v "director" emp.lst

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