

**BALLARI INSTITUTE OF TECHNOLOGY & MANAGEMENT**

(Autonomous Institute under Visvesvaraya Technological University, Belagavi)

USN

Course Code

22CS/AI/CA/381

Third Semester B.E. Degree Examinations, January 2025

**UNIX AND SHELL PROGRAMMING**

(Common to CSE, AIML, CSE- AI)

Duration: 1 hr

Max. Marks: 50

*Instructions to the Candidates:*

- All questions are compulsory
- Each question carries 1 mark
- Use only black ball point pen
- Darkening two circles for the same question makes the answer invalid
- Damaging/overwriting, using whiteners on the OMR are strictly prohibited.

Q.NoQuestion

1. Unix is a  
A. Single User, Single Tasking OS  
B. Single User, Multi-tasking OS  
C. Multi-User, Multi- Tasking OS  
D. None
2. In which language UNIX is written?  
A. C  
B. C++  
C. JAVA  
D. PYTHON
3. Which part of the Unix operating system interacts with the hardware?  
A. Kernel  
B. Shell  
C. Vi Editor  
D. Application program
4. The \_\_\_\_\_ command is used for listing files in a directory?  
A. list  
B. ls  
C. ps  
D. wc
5. Which of the following cannot be performed by cat command?  
A. appending file  
B. deleting files  
C. creating files  
D. displaying files
6. The Unix shell is both \_\_\_\_\_ and \_\_\_\_\_ language.  
A. scripting, interpreter  
B. high level, low level  
C. interactive, responsive  
D. interpreter, executing
- 7.. Which command is used to count just the number of characters in a file?  
A. wc  
B. wc -l  
C. wc -w  
D. wc -c
8. The \_\_\_\_\_ command tells you the directory that contains the command  
A. who  
B. which  
C. ls  
D. cat
9. The date command which displays both month and month name  
A. \$ date +%h  
B. \$ date +%h%m  
C. \$ date +"%h %m"  
D. All of the above
10. The \_\_\_\_\_ symbol represents the secondary prompt and \_\_\_\_\_ symbol represents primary prompt  
A. > and \$  
B. & and \$  
C. \$ and >  
D. \$ and \$
11. Which command is used for displaying date and calendar in UNIX?  
A. date and cal  
B. DATE and CAL  
C. date and calendar  
D. dt and cl
12. Programs access the kernel through a set of functions called  
A. Kernel  
B. System Calls  
C. Process  
D. Commands
13. The output of dir\* is \_\_\_\_\_.  
A. All files in the current directory  
B. All files in the directory having a filename starting with dir  
C. No filename is displayed  
D. Erroneous
14. UNIX was developed by  
A. Ken Thompson and Dennis Ritchie  
B. Paul Walker and John Cambell  
C. Bjarne Stroustrup and Dennis Ritchie  
D. Bjarne Stroustrup and Ken Thompson
15. Which option is used with ls command for long listing of files with seven attributes?  
A. -a  
B. -l  
C. -x  
D. -is

**Note: (RBTL - Revised Bloom's Taxonomy Level: CO - Course Outcome: PI- Performance Indicator)**

16. Which symbol is used to append an existing file?  
A. >                      B. <                      C. >>                      D. \$
17. UNIX has divided files into \_\_\_\_\_ categories.  
A. 1                      B. 2                      C. 3                      D. 4s
18. Text file and binary file belongs to \_\_\_\_\_ file.  
A. Ordinary File      B. Directory File      C. Device File      D. None of the above
19. In UNIX, directories are created using \_\_\_\_\_ command.  
A. mkdir                      B. rmdir                      C. mv                      D. rm
20. What represents the root directory?  
A. \                      B. /                      C. \$                      D. \*
21. Each entry of the directory file has component(s) namely \_\_\_\_\_.  
A. Filename                      B. Inode number                      C. Filename and inode number                      D. File size
22. UNIX treats everything as a file.  
A. True                      B. False
23. Which command is used for printing the current working directory?  
A. HOME                      B. cd                      C. pwd                      D. dir
24. What does the following command do  
***\$ mkdir dir dir/dir\_01/dir\_02***  
A. Create dir, dir\_01,dir\_02      B. Creates dir\_02      C. Creates dir only      D. Throws an error
25. If ***rmdir dir001*** fails, what could be the reason?  
A. dir001 doesn't exist                      B. dir001 is not empty  
C. permission of dir001 doesn't allow to remove it                      D. All of these
26. Which of the following characters specify the user and group category?  
A. 'u' and 'g'                      B. 'g' and 'o'                      C. 'us' and 'gr'                      D. 'u' and 'o'
27. What does the following command do?  
***\$chmod ugo +w file01.txt***  
A. Assign write permission to the user(owner) only  
B. Assign write permission to users, group and others  
C. Assign write permission to group and others                      D. Command not executable
28. What is the permission of file01 after executing this command?  
***chmod 777 file01***  
A. rw-rw-rw                      B. r—r—r—                      C. rwxrwxrwx                      D. r—r-----
29. Which command is used to change the group owner of the file?  
A. chown                      B. ch                      C. chgrp                      D. chmod
30. Which option is used with find command for specifying the file type?  
A. -perm                      B. -inum                      C. -name                      D. -type
31. A user creates a link to a file file1 using the following command "ln file1 file2". Which of the following is not true?  
A. file1 and file2 have the same inode numbers  
B. The number of links for file1 is displayed as 1  
C. The number of links for file1 is displayed as 2  
D. The number of links for file2 is displayed as 2
32. What is a shell script?  
A. group of commands                      B. a file containing special symbols  
C. a file containing a series of commands                      D. group of functions
33. The first line in any shell script begins with a \_\_\_\_\_.  
A. #                      B. !                      C. \$                      D. &
34. Which command is used for making the scripts interactive?  
A. ip                      B. input                      C. read                      D. write

35. What are positional parameters?  
 A. special variables for assigning arguments from the command line  
 B. pattern matching parameters  
 C. special variables for reading user input  
 D. special variables and patterns
36. The complete set of positional parameters is stored in \_\_\_\_\_ as a single string.  
 A. \$n                      B. \$#                      C. \$\*                      D. \$\$
37. Every if is closed with a corresponding \_\_\_\_\_.  
 A. else                      B. fi                      C. if                      D. else if
38. Every pattern in case statement is terminated with a \_\_\_\_\_.  
 A. ;                      B. :                      C. ;;                      D. //
39. Which of the following keywords are used in while loop?  
 A. do                      B. done                      C. then                      D. do and done
40. Which command is used by the shell for manipulating positional parameters?  
 A. set                      B. cut                      C. case                      D. paste
41. The statement `z = 'expr 5 / 2'` would store which of the following values in `z`?  
 A. 0                      B. 1                      C. 2                      D. 2.5
42. A process is an instance of \_\_\_\_\_ program.  
 A. waiting                      B. executing                      C. terminated                      D. halted
43. Each process is identified by a unique integer called \_\_\_\_\_.  
 A. PID                      B. PPID                      C. TID                      D. PTID
44. Which command shows some attributes of a process?  
 A. pid                      B. \$\$                      C. ps                      D. HOME
45. Which of the following system call is used for creating a new process?  
 A. read                      B. fork                      C. wait                      D. new
46. Which system call is used to run a new program?  
 A. fork                      B. wait                      C. exec                      D. exit
47. Which signal is sent when the child process terminates?  
 A. SIGSTOP                      B. SIGTERM                      C. SIGKILL                      D. SIGCHLD
48. Which command is used to display the first 10 lines of a file?  
 A. head -10                      B. tail -10                      C. head 10                      D. tail 10
- 49.. What is the primary difference between hard links and soft links?  
 A. Hard links can be created for directories, while soft links cannot.  
 B. Soft links can be created across different file systems, while hard links cannot.  
 C. Hard links point to the actual file data, while soft links point to the file name.  
 D. Soft links are more efficient than hard links.
50. Which command will print lines containing the word "error" from the file **logfile.txt**?  
 A. `grep error logfile.txt`                      B. `find error in logfile.txt`  
 C. `search error logfile.txt`                      D. `locate error logfile.txt`

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