

P.G DEPARTMENT OF COMPUTER APPLICATIONS
18PMC532 UNIX PROGRAMMING
K1 QUESTIONS WITH ANSWERS

UNIT- 1

1) Define unix.

Unix was originally written in assembler, but it was rewritten in 1973 in c, which was principally authored by Dennis Ritchie (c is based on the b language developed by kenThompson.

2) Discuss the Communication.

Excellent communication with users, network

User can easily exchange mail,dta,pgms in the network

3) Discuss Security

Login Names

Passwords

Access Rights

File Level (R W X)

File Encryption

4) Define PORTABILITY

UNIX run on any type of Hardware and configuration

Flexibility credits goes to Dennis Ritchie(c pgms)

Ported with IBM PC to GRAY 2

5) Define OPEN SYSTEM

Everything in unix is treated as file(source pgm,

Floppy disk,printer, terminal etc.,

Modification of the system is easy because the

Source code is always available

6) The file system breaks the disk in to four segments

The boot block

The super block

The Inode table

Data block

7) Command used to find out the block size on your file

\$cmchk

BSIZE=1024

8) Define Boot Block

Generally the first block number 0 is called the BOOT BLOCK. It consists of Hardware specific boot program that loads the file known as kernel of the system.

9) Define super block

It describes the state of the file system ie how large it is and how many maximum Files can it accommodate

This is the 2nd block and is number 1 used to control the allocation of disk blocks

10) Define inode table

The third segment includes block number 2 to n of the file system is called Inode Table. The information related to all files is stored in an inode table on the disk. It is made up of 64 bytes.

UNIT -II

11. Expand UNICS

Uniplexed Information And Computing System.

12. Define Data block

An allocated block can belong to only one file system. This block can be used for

Any other purpose unless the file is deleted

It contains the data for all files as well as the free blocks in the file system

13. Define file command

This command gives the general idea about a particular file

\$ file emp.lst

Emp.lst : ascii text

\$ file *

As1 ascii text

Calendar english text

Comp.sh commands text

Help dir directory

14. Define sort command

Sort command in unix or linux system is used to order the elements or text. Sort command has the capability of sorting numerical values and strings. The sort command can order the lines in a text file.

15. Syntax of sort command is:

sort [options] filename

16. Sort command examples:

cat order.txt

Unix distributed 05 server

Linux virtual 3 server

Unix distributed 05 server

Distributed processing 6 system

```
cat delim_sort.txt
```

```
Mayday|4
```

```
Janmon|1
```

```
Declast|12
```

17. Define Sorting lines of text

The default sort command uses alphabetical order (ASCII order) to sort the file.

It treats each line as a string and then sorts the lines.

```
> sort order.txt
```

```
Distributed processing 6 system
```

```
Linux virtual 3 server Unix distributed 05 server
```

```
Unix distributed 05 server
```

18. Define Numeric sorting.

Instead of the default alphabetical sorting order, you can make the sort command to sort in numeric order using the -n option.

19. Define Sort in reverse order.

By default, the sort command sorts the data in ascending order. You can change this to descending order using the -r option.

20. Define grep command

Grep is an acronym for the expression “ global regularar expression print”. It searches

All of the input value

```
Grep[options] [-e] 'pattern' [ file names] [ > outfile]
```

UNIT-III

21. Expand BSD

Berkeley software distribution

22. Command used to list directory

Echo ls

23. Command used to make directory

mkdir

24. Command used to copy a file

Cp \$file1 \$file2

25. Linux was invented by whom?

vennas doorwalts

26. Which browser used in Linux?

konueror

27. Define Head Command

The *head* [command](#) reads the first few lines of any text given to it as an input and writes them to [standard output](#) (which, by default, is the display screen).

head's basic syntax is:

head [options] [file(s)]

The square brackets indicate that the enclosed items are optional. By default, head returns the first ten lines of each [file](#) name that is provided to it.

For example, the following will display the first ten lines of the file named

aardvark in the [current directory](#)

28. Command used to delete a file

rm -I \$file

29. Name any two commands in Directory.

Copy a file

Cp

Make directory

mkdir

30. Command used to copy a file

Cp

UNIT-IV

31. Command used for word count

Wc

32. Command used for hexa decimal to decimal

Dec=`echo "ibase=16;\$n1"|bc`

33. Define Data Block

This block contains the actual file content. An allocated block can belong to only one file system. This block can be used for any other purpose unless the file is deleted.

It contains the data for all files as well as the free blocks in the file system.

In general, each file is assigned a minimum of two blocks, the number of blocks stored are maintained in i-node entry. By default, a file would go up to a maximum of 10 data blocks.

34. What is Multics?

In the late sixties, Ken Thompson and Dennis Ritchie designed and built a system based on a design made by Rudd Canaday but abandoned at AT and T Bell Laboratories.

35. Command used for exit

exit

36. Command used for decimal to hexa decimal

Hex=`echo "ibase=10;obase=16;\$n"|bc`

37. Command used for binary to decimal

Dec=`echo "ibase=2;\$n1"|bc`

38. Command used for decimal to octal

Octa=`echo "ibase=10;obase=8;\$n"|bc`

39. Command used to cut

Cut -f2,3 -d ":" \$f1

40. Name any two file related commands

Wordcount

Wc

Grep

Grep \$word \$file

UNIT-V

41. Define Silent features of Unix

Portability

Security

Communication

Open System

42. Define multi tasking capability

DOS - Serial multitasking unix - parallel processing/ multi user tsking/ time sharing

osbackground process / fore ground process - controles multi users

priority is based on waiting time/ io devices need/ hierarchical

43. Types of terminals

Dump Terminal

Terminal Emulation

Dail in Terminals

44. What is XENIX?

In the same time micro soft corporation collaborates with sco (santa crux corporation) released a product called XENIX . It is running in Intel family and Motorola family (68000 series)

45. Define SCO unix

BSD UNIX, XENIX merged with unix called Sco unix

46. Define **PDP-7**

Developed by T and R , a multitasking system, it is called as UNICS (uniplexed information and computing system)

47. Command used for getting out of vi editor

The easiest way to save your changes and exit out of vi is the **ZZ** command. When you are in command mode, type ZZ and it will do the equivalent of :wq.

48. Name any two blocks

The boot block

The super block

The Inode table

Data block

49. Define operation modes

While working with vi editor you would come across following two modes:

Command mode: This mode enables you to perform administrative tasks such as saving files, executing commands, moving the cursor, cutting (yanking) and pasting lines or words, and finding and replacing. In this mode, whatever you type is interpreted as a command.

Insert mode: This mode enables you to insert text into the file. Everything that's typed in this mode is interpreted as input and finally it is put in the file .

50. Define vi editor

The vi is generally considered the de facto standard in Unix editors because:

It's usually available on all the flavors of Unix system.

Its implementations are very similar across the board. It requires very few resources. It is more user friendly than any other editors like ed or ex. You can use vi editor to edit an existing file or to create a new file from scratch. You can also use this editor to just read a text file.

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K2 QUESTIONS WITH ANSWERS

Unit-I

- 1) **Unics finally became the name by which it is known today _____.**
a) Unix b) multics c) unices d) linux
- 2) **BSD UNIX, XENIX merged with unix called _____ unix.**
a) Sco b) unices c) bsd d) oods
- 3) **At &T introduced the unix as _____.**
a) Unix system V b) System S c) Unix c d) Unix V
- 4) **Unix is _____ programmable.**
a) highly b) code c) data code d) simply
- 5) **_____ is the heart of the system.**
a) Kernal b) security infrastructure c) redundancy d) OS
- 6) **Kernal is loaded into memory is called _____.**
a) booting b) software c) sensor data d) network data
- 7) **Lib –.**
a) library functions b) booting c) RDB d) point data
- 8) **Dev –**
a) Device related files b) user files c) log data d) device data
- 9) **Tmp-**
a) temporary files b) device c) cdata d) booting
- 10) **Bin –**
a) Binary executable files b) binary calls c) binary d) files

Answers:

- 1) A) Unix
- 2) A) Sco
- 3) A) Unix system V
- 4) A) highly
- 5) A) Kernal
- 6) A) booting
- 7) A) library functions
- 8) A) Device related files
- 9) A) temporary files
- 10) A) Binary executable files

Unit-II

11) In unix the file system breaks the disk in to _____ segements.

- a) four b) two c) one d) six

12) Generally the first block number 0 is called the _____.

- a) Boot Block b) block c) basic block d) Data block

13) Startup time → _____ ---→ _____.

- a) file system ---→ Memory b) file ---→ Memory c) system ---→ data streams
d) file devices ---→ Memory

14) A _____ disk can be split into several files system.

- a) hard b) floppy c) cd d) file

15) The disk space allocated to a Unix file system is made up of ____.

- a) Blocks b) files c) system d) isolation

16) By default a file would go up to maximum of ____ data blocks.

- a) 10 b) 5 c) 6 d) 9

17) i-node table is loaded in _____ during booting.

a)RAM b) CPU c) Network d) os

18)If you enter a correct password then only the ____symbol will displayed.

a)\$ b) & c) _ d) *

19) _____command has the capability of sorting numerical values and strings.

a)Sort b) string c) numbers d) time

20) The sort command can order the lines in a _____file.

a) text b)private c)cloud d)symbols

Answers:

- 11) a)*four*
- 12) a) Boot Block
- 13) a) file system ---→ Memory
- 14) a) hard
- 15) a) Blocks
- 16) a) 10
- 17) a) RAM
- 18) a) \$
- 19) a) sort
- 20) a) text

UNIT – III

21. Unix was originally written in assembler, but it was rewritten in 1973 in c, which was principally authored by Dennis Ritchie (c is based on the b language developed by kenThompson (True/False)

True

22. Linux - invented by ?.

Vennas Doorwalts

23. The syntax of sort command is?

sort [options] filename

24. Korn Shell was designed by David Korn of AT & T Bell Labs (True/False)

True

25. Bourne shell was created by whom?

Steve Bourne

26. Which command is used to open the compressed file?

Zat Command

27. Grep is an acronym for the expression ?

“Global regular expression print”.

28. Write a unix/linux cut command to print characters by range?

cut -c4-7 file.txt

unix

linu

29. Another way is piping the output of sort command ?

sort order.txt | uniq

30. Write a unix/linux cut command to print characters by position?

cut -c4 file.txt

u

l

UNIT-IV

31. Is it true that Present working directory command \$pwd?

Yes

32. Command to Read the contents of the file

\$ cat filename

33. Command to Clear the screen

\$ tput clear

34. Command for List the name of the files?

\$ ls

35. Uusr meaning?

home directories of all users

36. Command used to Remove the Directory?

rmdir file4

37. Command used to Create a directory?

\$ mkdir book

38. Command used to Copy a file

\$ Cp 11 12 13

39. Command used for Removing the given files?

\$ rm file3

40. Command used for Word count?

\$ wc user.list

UNIT-V

41. Unix file system is structured hierarical like downtree?

Yes

42. A kernel can be contrasted (compared) with a shell, shell is the outermost part of an operating system that interacts with ?.

a) User commands

b) echo command

c) shell

d) None of the mentioned

Answer – a

43. Touch Command Syntax:

\$ touch [options][date][files]

44. Sort in reverse order command?.

sort -nrk3 order.txt

45. *.b , *.c meaning?

a) Device file

b) Map

- c) booting
- d) All of the mentioned

Answer – a

46. .Profile meaning?

- a) individual login profile
- b) outputs
- c) tasks
- d) None of the mentioned

Answer – a

47. Name any 2 types of file

Simple or ordinary file

Special files

48. List any two vi editor modes:

Command mode

Insert mode

49. File management in unix is:

- a)flexible
- b)compressed
- c)user
- d)file systems

Answer – a

50. Bash shell Developed for ?

GNU Project

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K3 QUESTIONS

Unit-I

1. Describe the multiuser capability.
2. History of UNIX operating system.
3. Various features of UNIX.
4. Discuss working with directories.
5. Explain types of shell.
6. Discuss the miscellaneous commands.
7. Explain about sleep and wakeup.
8. Examine the command files.
9. Analyze about file substitutions.
10. Discuss about Kernal and Shell.

Unit-II

11. Classify the File Systems.
12. Classify the Vi editor.
13. Describe the basics of super block.
14. Explain redirection standard output.
15. Explain about redirection standard input.
16. Analyze the set commands.
17. Discuss about pipelines in UNIX.
18. List out the block commands.
19. Contrast Input and Output redirection.
20. Classify the modes of operation.

Unit – III

21. Narrate the characteristics of Parent and Children.
22. When do we use arrays and functions.
23. Discuss getline statements.
24. Discuss number processing.
25. Differentiate Process status and System process.
26. Explain Multi jobs in background.
27. How do you use positional parameters.
28. How do you manage Background process using kill.
29. Explain the nice and time command.
30. How do you use calendar and batch commands.

Unit – IV

31. Discuss the echo command with example.

32. Discuss the shell variables
33. Explain User defined variables.
34. Discuss any three looping statements with example.
35. How to identify the case statement with example.
36. How do you use shell functions.
37. Discuss Shell script
38. Discuss debugging shell procedures.
39. Explain Shell Keywords.
40. Discuss the simple programs.

Unit – V

41. Discuss the Adding and removing users.
42. How do you start up, shutting down the system.
43. Discuss mounting the file system.
44. Discuss unmounting the file system.
45. Explain the file system administration.
46. Discuss formatting disk.

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K4K5 QUESTIONS

Unit I

1. Explain the UNIX operating system.
2. Explain the features of UNIX.
3. Explain the multitasking capability.
4. Contrast the brief history of UNIX Kernel.
5. Classify the types of files.

Unit II

6. Explore the file systems.
7. Explain the storage of files.
8. List the UNIX tools.
9. Explain the pipelines in UNIX.
10. Describe the modes of operation.

Unit III

11. Explain Communication and scheduling.
12. Explain the Mail facility.
13. Explain Cron facility.
14. How do you use Filters and process. Explain.
15. Explain the SH Process in detail.

Unit IV

16. Explain the Shell Script.
17. How do you use passing command line arguments.
18. Modify the conditional execution using AND and OR operation.
19. Discuss looping programs.
20. Elaborate the Shell functions.

Unit V

21. Explain disk management.
22. Discuss the making and mounting a file.
23. Discuss unmounting file system.
24. Explain the ensuring system security.
25. Explain the file system administration.