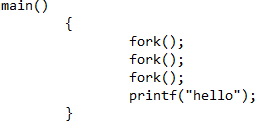
**System programing question**

1. Among the following commands which is used to display the directory attributes rather than its contents?
2. Is-l-d
3. Is-l
4. Is-x
5. Is-F
6. Which of the following is sits between the user and the Unix Systems?
7. CPU
8. hardware
9. Logic
10. Shell
11. Which command is used to display the characteristics of a process?
12. ps
13. au
14. du
15. all
16. Which of the following statements are true?
17. possible to directly link user-space applications with kernel space
18. user-space applications must be allowed to directly execute kernel code
19. The C library is at the heart of Unix applications
20. All
21. Which UNIX command is used for changing the current file directory?
22. rm
23. pwd
24. cp
25. cd
26. Which of the following system calls are used for creating and removing directories?
27. rmdir and chown
28. mkdir and rmdir
29. chdir and chown
30. mkdir and chdir
31. Among the following which one is true about hard links?
32. hard links allow multiple links map different names to the same inode
33. hard links allow for complex filesystem structures with multiple pathnames pointing to the same data
34. Hard links cannot span filesystems
35. all
36. Which of the following is UNIX character devices?
37. hard disks
38. CD-ROM drives
39. Keyboard
40. Flash disk
41. Which of the following is the core of the Linux operating system?
42. Vi Editor
43. Kernel
44. Command Line
45. Terminal
46. Which is the correct command syntax to locate a file containing the words "hello" and "this"?
47. locate -i \*hello\*this
48. locate -i \*\*hello\*\*this
49. locate -i \*hello\*this\*
50. locate -i \*\*hello\*\*this\*\*
51. Which of the following Linux command is used to know which directory you are in?
52. know
53. pwd
54. help
55. cwd
56. As a system programmer, you want to create a new directory named XYZ, which command will be used for this purpose?
57. cd XYZ
58. mkdir XYZ
59. chdir XYZ
60. md XYZ
61. How do you show all processes being run by a particular user?
62. cat /etc/activeprocess | grep USERNAME
63. cat /home/USERNAME/open.process
64. top -U [USERNAME]
65. netstat -u USERNAME
66. When the exit status of the process is undefined?
67. the main function is not declared to return an integer
68. main does a return without a return value
69. any of these functions is called without an exit status
70. all
71. Which of the following is the advantages of shared libraries in Linux programming?
72. reduce the size of executable file
73. library functions can be replaced with new versions without having to relink edit every program
74. a &b
75. None
76. Which of the following is not the advantages of malloc function?
77. easier to use in threaded programs
78. provide a simple interface that allows memory to be allocated in small units
79. allow us to arbitrarily deallocate blocks of memory
80. the allocated memory is initialized
81. \_\_\_\_\_\_a method that kernel uses to minimize the frequency of disk access by maintaining a pool of internal data buffer to increase the response time and throughput?
82. Pooling
83. Buffer cache
84. Swapping
85. Spooling
86. Which of the following command is used to take the backup in UNIX?
87. backup
88. zip
89. gzip
90. cpio
91. Which of the following commands will display all the files in your current directory and its subdirectories including the hidden files?
92. ls –a
93. ls –R
94. ls –aR
95. ls –l
96. Which of the following command displays the current date in the format dd/mm/yyyy?
97. date +”/%d/%m/20%y”
98. date +%d/%m/%Y
99. date +”%d/%m/%Y”
100. date +/%d/%m/20%y
101. Which of the following function is used for allocate memory dynamically from the stack?
102. malloc()
103. alloca()
104. free()
105. none
106. Which of the following is true about the alloca () function?
107. it allocate block of memory is slower than malloc function
108. it allocates is automatically freed when the stack frame is removed
109. it needs to maintain a list of free blocks
110. none
111. Which of the following is not true about threads in Linux programming?
112. sharing information between threads is easy and fast
113. thread creation is faster than process creation
114. a thread uses parallelism which provides a way to improve application performance
115. threads are independent of one another like processes
116. What happens when a signal is close to being delivered?
117. The signal is ignored
118. The process is terminated
119. A core dump file is generated, and the process terminates
120. The process's execution is resumed or suspended
121. All
122. How to share one thread with other threads within the same process?
123. thread ID
124. code section and data section
125. register set and a stack
126. program counter
127. Which of the following multithreaded model, the entire process will block if a thread makes a blocking system call?
128. one to many model
129. many to many model
130. many to one model
131. one to one model
132. Which system call can be used by a parent process to determine the termination of child process?
133. exit
134. wait
135. get
136. fork
137. Among the following which is used for address of the next instruction to be executed by the current process?
138. Program counter
139. Process stack
140. CPU registers
141. Pipe
142. Which of the following works by dividing the processor’s time?
143. single task operating system
144. kernel
145. multitask operating system
146. applications
147. Which of the following decides which task can have the next time slot?
148. single task operating system
149. application manager
150. multitasking operating systems
151. kernel
152. Which of the following provides a time period for the context switch in Linux?
153. timer
154. counter
155. time machine
156. time slice
157. Where are placed the list of processes that are prepared to be executed and waiting?
158. Job queue
159. Ready queue
160. Execution queue
161. Process queue
162. Which of the following Linux resource limit that controls the maximum number of file locks that a process may hold?
163. RLIMIT\_FSIZE
164. RLIMIT\_LOCKS
165. RLIMIT\_DATA
166. RLIMIT\_MSGQUEUE
167. Which of the following is false about the Virtual memory?
168. Enables users to run programs that are larger than actual physical memory.
169. VM makes the task of programming much easier.
170. It allows processes to share files easily and to implement shared memory.
171. it uses inefficient mechanism for process creation
172. How do you view the documentation for the command ‘kill’ in the Linux terminal?
173. kill –help
174. man kill
175. kill –help
176. doc kill
177. Which of the following userspace is Linux typically paired?
178. Hurd
179. BSD
180. GNU
181. System V
182. If you want to load the main kernel module for USB support. Which command would help you achieve this task?
183. modprobe usbcore
184. modprobe ehci-ocd
185. modprobe uhci-hcd
186. modprobe
187. Which directory contains configuration files in Linux?
188. /bin/
189. /dev/
190. /etc/
191. /root/
192. How many times below program will print hello?



1. 6
2. 8
3. 3
4. 9
5. If you wanted to execute a shell command in the background, which character would you put at the end of the command line?
6. &
7. **;**
8. **:**
9. @
10. Which of the following is not a feature of UNIX?
11. Multiuser
12. easy to use
13. multitasking
14. portability
15. Which of the following Linux command-line utility that reports or filters out the adjacent duplicate lines in a file?
16. paste
17. uniq
18. sort
19. cut
20. Which of the following command is used for searching for a pattern in one or more file(s)?
21. paste
22. cd
23. grep
24. Cp
25. Which of the following cannot be performed by cat command?
26. appending files
27. creating files
28. displaying file
29. deleting files
30. Which of the following commands is known as stream editor?
31. grep
32. tr
33. sed
34. td
35. What is the function of cp command in UNIX?
36. delete a given file
37. change the directory
38. list all the available files in the current directory
39. cp is a command used for copying files and directories
40. Which of the following is the key feathers of Korn shell?
41. perform command line editing
42. maintains command history so that the user can check the last command executed if required
43. additional flow control structures
44. all
45. Which of the following is commonly used networking commands in UNIX?
46. sh
47. tcsh
48. su
49. ksh
50. Which of the following UNIX commands that are used for displaying the user information?
51. nslookup
52. tcsh
53. Last
54. Is –F
55. Which of the following is the features of Stateless Linux server?
56. Stores prototype of every machine
57. Store snapshots
58. Store home directories
59. All
60. In signal handling, process that receives cannot take the following action.
61. Ignore the signal such as SIGSTOP and SIGKILL
62. Perform system specified default for signal
63. Catch the signal, when process catches signal except SIGSTOP and SIGKILL
64. None.
65. If the start-up routine were coded in C the call to main could look like
66. main(exit(argc, argv));
67. exit(argc, argv);
68. exit(main(argc, argv));
69. None
70. What is the major disadvantage(s) of shared library?
71. Maintaining a single copy of the library routine somewhere in memory that all processes references.
72. Reduces the size of each executable file
73. Remove the common library routines from the executable file
74. none
75. #inlude<unistd> this header file referred by
76. void exit (int status);
77. void \_Exit(int status);
78. void \_exit(int status
79. None
80. which could be the proper syntax of initialization function in memory allocation
81. void \*realloc(size\_t , size);
82. void \*malloc(void \*ptr, size\_t newsize);
83. void \*calloc(size\_t nobj, size\_t size);
84. All
85. Asynchronous signal/(s)
86. divided by zero
87. keyboard shortcut
88. illegal memory access
89. All
90. Which one is the valid function that refers to #include<unistd.h>
91. int rmdir(const char \* pathname);
92. int mkdir(const char \* pathname, mode\_t mode);
93. int mkdirat(int fd, const char \*pathname, mode\_t mode);
94. All
95. From the given options which is unique one from the other
96. return the last thread from its start routine
97. calling abort
98. receipt of a signal
99. response of the last thread to a cancellation request
100. Which of the following system software resides in main memory always?
101. Text editor
102. Assembler
103. Linker
104. Loader
105. Daisy chain is a device for?
106. Interconnecting a number of devices to number of controllers
107. Connecting a number of devices to a controller
108. Connecting a number of controller to devices
109. All of above
110. What is bootstrapping?
111. A language interpreting other language program
112. A language compiling other language program
113. A language compile itself
114. All of above
115. Shell is the exclusive feature of
116. UNIX
117. DOS
118. System software
119. Application software
120. A program in execution is called

A. Process B. Instruction C. Procedure D. Function

1. A UNIX device driver is

A. Structured into two halves called top half and bottom half

B. Three equal partitions

C. Unstructured

D. None of the above

1. Memory:-

A. is a device that performs a sequence of operations specified by instructions in memory

B. is the device where information is stored

C. is a sequence of instructions

D. is a computational unit to perform specific functions

1. What will be output of the following code?

#include

int main(){

printf(“%d\t”,sizeof(6.5));

printf(“%d\t”,sizeof(90000));

printf(“%d”,sizeof(‘A’));

return 0;

}

A. 8 4 1 B. 8 4 2 C. 8 4 4 D. 8 4 3

1. What will be output of the following c code? ( according to GCC compiler)

#include

int main(){

signed x;

unsigned y;

x = 10 +- 10u + 10u +- 10;

y = x;

if(x==y)

printf(“%d %d”,x,y);

else if(x!=y)

printf(“%u %u”,x,y);

return 0;

}

a. 0 0 b. 65536 -10 c. 0 65536 d. Compilation error

1. What will be output of the following c code?

#include

int main(){

const int \*p;

int a=10;

p=&a;

printf(“%d”,\*p);

return 0;

}

A. 0 B. 10 C. Garbage Value D. Any Memory address

1. Which of the following is integral data type?

A. void B. char C. float D. double

1. Expansion time variables are used

A. Before expansion of micro calls

B. Only during expansion of macro calls

C. After expansion of micro calls

D. Any one of the above

1. A model statement contains call for another macro is called as

A. referential macro call

B. nested macro call

C. inbuilt macro call

D. inherited macro call

1. The flow control during macro expansion is

A. combination B. chronological C. indexable D. sequential

1. A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ statement declare the name of macro.
2. macro prototype
3. macro definition
4. macro identification
5. None of the above
6. A macro definition consists of

A. A macro prototype statement

B. One or more model statements

C. Macro pre-processor statements

D. All of the above

1. The translator which perform macro expansion is called a

A. Macro processor

B. Macro pre-processor

C. Micro pre-processor

D. assembler

1. Which command is used with vi Editor to delete a single character

A. x B. y C. a D. z

1. What command is used to count the total number of lines, words, and characters contained in a file?

A. countw B. wcount C. wc D. count p

1. How can you add “Zerihun”, a new user, to your system?
2. Using useradd B. Using adduser C. Using linuxconf D. All
3. What file specifies the order in which to use specified name services?

A. /etc/services B. /etc/nsorder C. /etc/nsswitch.conf D. /etc/hosts

1. How many primary partitions can exist on one drive?

A. 16 B. 4 C. 2 D. 1

1. In which directory can you store system user default files used for creating user directories?

A. /usr/tmp B. /etc/default C. /etc/skel D. etc/users

1. Which is the correct matching?

A. TIME\_OOP : a leap second just occurred

B. TIME\_WAIT : a leap second is in progress

C. TIME\_BAD : the clock is partially synchronized

D. TIME\_OK : the clock is synchronized

1. How to locate and get the process time or in which header file?

A. #include<sys/times.h> C. #include<times.h>

B. #include<utils/times.h> D. #include<clocks.h>

1. Which is not true about the times () system call which retrieves the process time of the running process and its children, in clock ticks?

Struct tms {

}; clock\_t times(struct tms\*buf);

A. Clock\_ t tms\_utime; // user time consumed

B. Clock\_t tms\_stime; // system time consumed

C. Clock\_t tms\_cutime; //system time consumed by children

D. Clock\_t tms\_usertime; //user time consumed by children

1. The simplest interface to the signal features of the UNIX System is the signal function.so, which could be the correct syntax ?

A. void (int) (\*signal(int signo, void (\*func)(int)))(int);

B. void (void (\*signal(int signo, void) (\*func)(int)))(int);

C. void (\*signal(int signo, void (\*func)(int)))(int);

D. None

1. Which is not true about closing the opened file?

#include <fcntl.h>

int close(int fd);

A. fd: file descriptor B. 0 :on success C. -1 : on error D. NULL : on error

1. How to create threads?

#include<pthread.h>

A. int pthread\_create(pthread\_t \*restrict tidp, const pthread\_attr\_t \*restrict attr,void \*(\*start\_rtn) (void\*), void \*restrict arg);

B. pthread\_t pthread\_self(void);

C. int pthread\_equal(pthread\_t tid1, pthread\_t tid2);

D. pthread\_t create(thread tid1);

1. Which is the correct signature to exit thread?

#include<pthread.h>

A. int pthread\_exit\_();

B. void pthread\_exit(void\*rval\_ptr);

C. void pthread\_exit(void);

D. int pthread\_exit(0);

1. From the following given options one is not describe about signals?

A. software interrupts

B. most nontrivial application programs need to deal with signal

C. signals provide a way of handling asynchronous events

D. signals have the capacity to protect the system

1. true about signals:
2. SIGFPE : bus error
3. SIGCONT : restart
4. SIGILL : interrupt the process
5. SIGINT : division by zero
6. From the following which could be fully describe about Application Programming Interface (API)?
7. The interface by which one piece of software communicates with another at the source level
8. It provides abstraction by providing a standard set of interfaces at low level piece
9. Binary interface between two or more pieces of software on a particular architecture
10. They are concerned with issues such as calling conventions, byte ordering, register use, system call invocation.
11. Which is the correct scenario about POSIX?
12. Richard Stallman suggested the standard be named POSIX
13. Tim-Berners Lee was published the first POSIX Standard
14. Daphne Koller is the first linux standard inventor
15. Geoffrey Hinton who was the first unix standard inventor
16. Which are not correct primitive system data types ?

A. mode\_t B. cclock\_t C. size\_t D. ssize\_t

1. the primitive system data type which is used to define the file sizes and balances

A. gid\_t B. ino\_t C. off\_t D. pid\_t

1. in which of the following header file the system primitive system data types found?

A. <sys/types.h> B. <types.h> C. <util.h> D. <ctype.h>

1. Which is the correct signature of symbolic link?
2. int symlink(const char \*pathname, const char \*slink);
3. void symlink(const char \*pathname, const char \*slink);
4. char symlink(const char \*pathname, const char \*slink);
5. string symlink(const char \*pathname, const char \*slink);
6. What is the difference between hard and symbolic link ?
7. A soft link is a file all its own, and the file references or points to the exact spot on a hard drive where the Inode stores the data.
8. A hard link isn't a separate file, it points to the name of the original file, rather than to a spot on the hard drive
9. soft link is similar to file shortcut where as hard link is copy of original file
10. A and B
11. Which are not Valid optional constants of open() and openat() system:
12. O\_APPEND
13. O\_CREAT
14. O\_NOFOLLOW
15. O\_ASYNCNO
16. How to use lseek function?

A. <unistd.h> off\_t lseek(int fd, off\_t offset, int whence);

B. <stdio.h> offset\_t lseek(int fd, off\_t offset, int whence);

C. <apue.h> offset\_t lseek(int fd, off\_t offset, int whence);

D. <types.h> int lseek(int fd, int offset, int whence);

1. How many data structure uses the kernel to represent an open file?

A. 1 B. 2 C. 3 D. 4