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BCA-502

UNIX AND SHELL PROGRAMMING

Time Allotted: 3 Hours

Full Marks: 70

The questions are of equal value.

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable. All symbols are of usual significance.

70

GROUP A

(Multiple Choice Type Questions)

1. Answer any ten questions. $10 \times 1 = 10$

(i) The 'logout' built in command is used to

10

- (A) shutdown the computer
- (B) logoff of the computer
- (C) logout the current user
- (D) to exit the current shell

(ii) The command 'umask -S'

- (A) prints the current mask using symbolic notation
- (B) prints the current mask using octal numbers
- (C) sets the mask to 000
- (D) sets the mask to 777

CS/

- (iii) Which option of the kill command sends the given signal name to the specified process?
8. (A) -1 (B) -n
(C) -s (D) -a
- (iv) Which command puts a script to sleep until a signal is received?
- (A) Sleep (B) Suspend
(C) Disown (D) Break
- (v) The command 'ulimit'
9. (A) set a limit on specified resource for system users
(B) set/show process resource limit
(C) both (A) and (B)
(D) none of these
- (vi) Which command wait for the specified process to complete and return the exit status?
- 10 (A) Sleep (B) Wait
(C) Delay (D) Stop
- (vii) Which command prints the accumulated user and system times for processes run from the shell?
- 11 (A) Time (B) Times
(C) Both (A) and (B) (D) None of these
- (viii) The expression expr -9% 2 evaluates to
- (A) 0 (B) 1
(C) -1 (D) 2
- (ix) Create a new file "new.txt" that is a concatenation of "file1.txt" and "file2.txt"
- (A) cp file.txt file2.txt new.txt
(B) cat file1.txt file2.txt > new.txt
(C) mv file [12].txt new.txt
(D) ls file1.txt file2.txt | new.txt

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GROUP B

(Short Answer Type Questions)

Answer any *three* questions. $3 \times 5 = 15$

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|----|--|-----|
| 2. | Differentiate between multi programming and multi tasking.
What are the differences between relative and absolute path? | 3+2 |
| 3. | What is daemon process? What is the difference between cd and cd..? | 2+3 |
| 4. | What are the different ways of using chmod? | 5 |
| 5. | Draw the UNIX architecture. What are the different parts of it? | 3+2 |
| 6. | What is i-node? What does it contain? | 1+4 |

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7. What is filter? Describe the function of any two filters. 2+3

8.

GROUP C
(Long Answer Type Questions)

Answer any *three* questions.

$3 \times 15 = 45$

8. (a) Write a shell program to find prime numbers between 1 to n. 7

(b) What do you understand by PATH variable? How does the kernel access file? 2+3

- (c) What is unique command? Explain with example. 3

9.

9. (a) Describe the log in process briefly. 5

(b) Describe the ps -f command in detail. 5

(c) Describe the modes of vi editor. 5

10

10. (a) Write a shell program to generate fibonacci series. 6

(b) Write a shell program to reverse a number. 7

(c) How to copy 4 lines and paste it to another file in vi editor? 2

11. Write short notes on any *three* of the following: 3×5

(a) Soft link and Hard link

(b) Mounting and unmount

(c) Background job execution

(d) ls command

(e) IFS

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