GIET UNIVERSITY, GUNUPUR – 765022

B. C. A (Fifth Semester) Examinations, November - 2023
BCA20502 – Unix & Shell Programming

Time: 3 hrs   Maximum: 70 Marks

Answer all questions

The figures in the right hand margin indicate marks.

PART – A: (Multiple Choice Questions)   **(1 x 10 = 10 Marks)**

Q. 1 Answer *ALL* questions   CO #   PO #

		CO #	PO #
a. Which command is used to print a file.		CO1	PO1
(i) print	(ii) lpr		
(iii) ptr	(iv) none of the above.		
b. Which option of rm command is used to remove a directory with all its sub directories.		CO1	PO1
(i) -b	(ii) -o		
(iii) -p	(iv) -r		
c. What is the core of the Linux operating system?		CO2	PO1
(i) Terminal	(ii) Shell		
(iii) Command	(iv) Kernel		
d. Which command changes a file's group owner		CO2	PO1
(i) cgrp	(ii) chgrp		
(iii) chown	(iv) chmod		
e. Which posix version deals with shell and utilities?		CO3	PO1
(i) Posix.1	(ii) Posix.2		
(iii) Posix.3	(iv) Posix.4		
f. User prompt for any shell is _____ sign		CO3	PO1
(i) #	(ii) %		
(iii) ?	(iv) *		
g. Where the environment variables are stored		CO4	PO1
(i) /etc/root/	(ii) /etc/environment/		
(iii) /env/	(iv) /etc/bin/		
h. Which command reads user input from the terminal and assign this value to a variable name?		CO4	PO1
(i) read	(ii) echo		
(iii) get	(iv) scan		
i. Which command is used to rename a file or directory.		CO1	PO1
(i) rename	(ii) mv		
(iii) remove	(iv) move		
j. Which command is used to assign read-write permission to owner?		CO2	PO1
(i) chmod a+r file	(ii) chmod a+x file		
(iii) chmod u=r file	(iv) chmod u=rw file		

PART – B: (Short Answer Questions)   **(2 x 10 = 20 Marks)**

Q.2. Answer *ALL* questions

		CO #	PO #
a.	What is Shell in Unix OS?	CO1	PO1
b.	Define POSIX.	CO1	PO1
c.	Write the Output: i) echo -e " Giet \c University. ii) echo -e " Giet \r University.	CO2	PO2
d.	Write the difference between gzip and gunzip.	CO2	PO1
e.	Write the output: a. ls f* b. ls ab.	CO3	PO2
f.	Write are the limitations of Bourne shell.	CO3	PO1
g.	I have one file: cat marks.txt	CO4	PO2

g. I have one file: cat marks.txt
             Ram - 70 Gopal -80   Shyam - 90
     Write the command to print only digits and also write the output.

		CO #	PO #
h.	Define grep command with example.	CO4	PO1
i.	Write the use of "wc" command with an example.	CO2	PO1
j.	Write the output : I) echo "10>5"|bc	CO1	PO2

j. Write the output : I) echo "10>5"|bc
             II) echo "Var=10 ; Var^2;Var" |bc

PART – C: (Long Answer Questions)   **(10 x 4 = 40 Marks)**

Answer *ALL* questions

		Marks	CO #	PO #
3.*a.*	(i) Write the difference between Internal and External Command. (ii) Write the difference between Kernel and Shell.	3+2	1	2
b.	Explain the Unix architecture with a labeled diagram.	5	1	1
	(OR)			
c.	Explain the different features of Unix OS.	5	1	1
d.	Explain about Kernel in Unix OS and mention the different tasks performed by kernel.	5	1	1
4.*a.*	Explain about comm, diff, cmp, tac and find command with proper example of each.	10	2	2
	(OR)			

b.	Write the command: i) To copy owner ship of one file to another.
	                          ii) To change the ownership of multiple file.
	                          iii) To give permission for an empty file.
	                          iv) To change both owner and group of file.
	                          v) To give executable permission for a file.
		[2*5=
		10]
			2	2

5.*a.*	Define Unix process and explain fore ground and back ground process with example.	5	3	1
b.	Define Shell. Explain in detail about the different types of shell used in OS.	5	3	1
	(OR)			
c.	Explain the process creation cycle in Unix OS and Write a C program to create a fork.	5	3	2
d.	Write the different steps for Shell creation.	5	3	1
6.*a*	Define Environment variable and how to set it temporarily and permanently. Write Some common environment variable used in Unix.	5	4	2
b.	Explain about Basic Regular expression(BRE) Interval regular expression(IRE), Extended Regular Expression(ERE) with example.	5	4	2
	(OR)			
c.	Write the description of the following command: (i) Grep-h (ii) Grep-v (iii) grep-o (iv) Uniq-c (v) uniq-d	5	4	2
d.	Write a shell script program to check whether a number is odd or even by using command line arguments.	5	4	2

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