UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, Dec 2020

Course: UNIX and Linux Essentials
Program: BCA with spl. IoT
Course Code: CSBC 2011

Semester: III
Time : 03 hrs.
Max. Marks: 100

Instructions: Attempt all Questions

SECTION A (30 Marks)
MCQs/True-False choose appropriate option

S. No.		Marks	CO
Q1	i. What is UNIX? a) an operating system b) a text editor c) programming language d) software program ii. pwd and echo $HOME will display the same output. a) True b) False iii. The inode number associated with a file is changed after renaming it. a) True b) False	1+2+2= 5	CO2
Q2	i. Which option performs recursive deletion? a) -r b) -R c) * d) -r and -R ii. Given the uname –a command, which type of UNIX command component does –a represent? a) Option b) Parameter c) Argument d) substitute iii. What does the following command do? $ chmod ugo +w file01.txt a) assign write permission to users, group and others b) assign write permission to the user (owner) only c) assign write permission to group and others d) command not executable	1+2+2= 5	CO3
Q3	i. Which of the following is used to compress files? a) cmp b) gzip c) gunzip d) comm ii. We cannot uncompress files using gzip. a) True b) False iii. Which of the following is an archival program? a) arch b) archive c) ar d) tar	1+2+2= 5	CO1
Q4	i. Which symbol is used for assigning a value to variables? a) $ b) & c) = d) @ ii. A variable can be removed using _____ a) unset b) readonly c) del d) bash iii. Which of the following option is used with a set for debugging shell scripts? a) -a b) -x c) -d d) -e	1+2+2= 5	CO1
Q5	i. test statement cannot _____ a) compare two numbers b) compare two strings c) compare two files d) check a file's attributes ii. Which one of the following keyword is used with the set command to avoid overwrite existing file? a) nooverwrite b) ignore c) clobber d) noclobber iii. When we use &&, the second command is executed only when first succeeds. a) True b) False	1+2+2= 5	CO1
Q6	i. "What is the output of the following command? $ wc -c *.c" b) total size of .c files c) size of each .c file d) undefined erroneous ii. Which of the following symbol(s) can be used to redirect the output to a file or another program? a) | b) > c) >> d) |, > and >> iii. Which of the following are history variables? a) HISTISIZE b) HISTFILESIZE c) HISTORY d) HISTISIZE and HISTFILESIZE	1+2+2= 5	CO1

	SECTION B (50 Marks)		
Q 7	Briefly describe the evolution of UNIX and LINUX.	**10**	**CO3**
Q 8	Describe any 5 Signals used with kill command to send to another process. What is the purpose of Signaling?	**10**	**CO1**

Q 9	Describe the usage and purpose for the following commands.
	
	   a. uname
	   b. umask
	   c. alias
	   d. bzip2
	   e. unset
		10	**CO2**

Q 10	a) Describe the security features in linux file system. How are they managed? b) Describe processes and their handling in linux OS.	**10**	**CO3**
Q 11	Describe various re-direction metacharacters in terms of stdin, stdout and sterr, use appropriate examples to explain the usage.	**10**	**CO1**
	SECTION-C (20 Marks)		
Q 12	Write a shell script to form a menu for a scientific calculator having trigonometry, logarithms and exponentials apart from normal arithmetic.	**20**	**CO1**