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RAN-2011000105020001**T.Y.BCA (Sem-V) Examination****January - 2021****P-502 UNIX and SHELL Programming****Time: 3 Hours]****[Total Marks: 70****સૂચના : / Instructions****(૧)**

નીચે દર્શાવેલ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the details of signs on your answer book

Name of the Examination:

☛ **T.Y.BCA (Sem-V)**

Name of the Subject :

☛ **P-502 UNIX and SHELL Programming**Subject Code No.: **2011000105020001**

Seat No.:

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Student's Signature

(2) Figures to the right indicates marks

(3) Mention Option clearly

Q-1. Answer in short (Any seven)**(14)**

1. What the -r option of rm command will do?
2. What command ls-a do?
3. Explain the purpose of super block.
4. What is exit status of a command?
5. What is the purpose of /bin directory of Unix file system?
6. What do you mean by a daemon? List out them.
7. What do you mean by sticky bit?
8. Explain the use of tee command.

Q-2. Answer the following: (Any two)**(14)**

1. Explain features of Unix Operating System.
2. Explain the directory structure of UNIX OS.
3. The booting process of UNIX with init process.

- Q-3.** (a) Explain positional parameters of the shell. (6)
(b) Write a shell script to check whether entered file exists or not. (5)

OR

- (a) Write a shell script to check whether entered file readable or not. (5)
(b) Explain at and batch commands. (3)

- Q-4.** (a) Explain sed command with its subcommands. (5)

OR

- (a) What is a link? How to create soft link and hard link? (5)
(b) Select the right answer for the following questions (Any five): (5)

1. Which of the following commands is used to update access and modification times of a file?
A. grep B. wc C. touch D. cat
2. Which of the following is not a communication command?
A. Write B. mesg C. mail D. grep
3. Which of the following keys is used to replace a single character with new text?
A. S B. s C. R D. C
4. Which command is used to extract specific columns from the file?
A. cat B. cut C. grep D. paste
5. Which symbol will be used with grep command to match the pattern pat at the beginning of a line?
A. ^pat B. \$pat C. pat\$ D. pat^
6. Which command is used to sort the lines of data in a file in reverse order?
A. sort B. sh C. st D. sort-r

- (c) Explain following commands: (Any two) (4)
1. Is
2. kill
3. umask

- Q-5.** (a) **Answer the following: (Any two)** (6)
1. Explain while loop with examples.
2. Explain pipes in Unix with example.
3. Explain append and change commands of sed utility.

(b) Select correct answer for the following questions (Any four)

(4)

1. Select a command to run a utility $\times 1$ at 10:00 AM.
 - a. $\$$ at 10:00 $\times 1$
 - b. $\$$ batch 10:00 $\times 1$
 - c. $\$$ crontab 10:00 $\times 1$
 - d. All of the above
2. Select a command to replace 'UNIX KERNEL' with 'KERNEL' from line no 10 to 20 in file a1.txt.
 - a. $\text{sed -e '10,20/s/UNIX KERNEL/KERNEL/' a1.txt}$
 - b. $\text{sed -e '10,20//UNIX KERNEL/KERNEL/g' a1.txt}$
 - c. $\text{sed -e '10,20//UNIX KERNEL//KERNEL/' a1.txt}$
 - d. $\text{sed -e '10,20/r/UNIX KERNEL/KERNEL/' a1.txt}$
3. Select a command to display all blank lines between line 20 and 30 of file test.txt.
 - a. $\$ \text{ sed -e '20,30/^$/p' test.txt}$
 - b. $\$ \text{ sed -e '20,30/$/p' test.txt}$
 - c. $\$ \text{ sed -e '20,30/$/p' test.txt}$
 - d. $\$ \text{ sed -e '20,30/ /p' test.txt}$
4. Select a command to list file names consist of only 4 digits.
 - a. $\$ \text{ find. -name '[0-9] [0-9] [0-9] [0-9]' - print}$
 - b. $\$ \text{ ls | grep -E '^[0-9]+$'}$
 - c. $\$ \text{ ls [0-9] [0-9] [0-9] [0-9]}$
 - d. All of the above
5. Select a command to display the lines that do not contain "Unix" in unix.txt.
 - a. $\$ \text{ grep -vi Unix unix.txt}$
 - b. $\$ \text{ grep -ic Unix unix.txt}$
 - c. $\$ \text{ grep -xi Unix unix.txt}$
 - d. $\$ \text{ grep -cl Unix unix.txt}$

(c) Explain any two communication commands.

(4)
