PART A

1 HELLO, WORLD!

- 3 creates file.txt if doesn't exist
- 4 displays all hidden files
- 5 delete file.txt
- 6 copy file1.txt to file2.txt
- 7 moves the file to specified path
- 8 makes the permissions of owner rwx group r and x and make other users r and x
- 9 searches pattern in file.txt
- 10 kills Process with ID PID
- 11 prints Hello, World!
- 12 displays Is -I on .txt files
- 13 concats both files and sorts and prints unique strings
- 14 it searches for directorys and displays all the permisions by Is -I command
- 15 Searches recursively for files containing a specific pattern within the specified directory and its subdirectories.
- 16 Concatenates the contents of file1.txt and file2.txt, sorts the lines alphabetically, and then filters out duplicate lines, displaying only the duplicate lines.
- 17 Changes the permissions of file.txt to read and write for the owner, and read-only for group and others.
- 18 Copies the contents of source_directory to destination_directory, including all subdirectories and files.
- 19 Searches recursively for files with a .txt extension within the specified directory (/path/to/search) and its subdirectories.
- 20 Adds executable permission for the owner of file.txt.
- 21 Prints the value of the PATH environment variable, which contains a list of directories where executable files are located. Each directory is separated by a colon.

PART B

- 1 true
- 2 mv is used for moving and renaming
- 3 cd is used to enter a directory
- 4 pwd print working directory
- 5 true
- 6 true
- 7 true -p directory1/directory2 it makes dire1 into dire2
- 8 true rm -rf forcefully deletes the file
- 1 chmod
- 2 cp

```
3 mkfile is wrong4 cat is used5 mv is used for rename
```

PART C

```
kushal@Mysekai:~$ vi assign.sh
kushal@Mysekai:~$ chmod +x assign.sh
kushal@Mysekai:~$ ./assign.sh
Hello, World!
enter the string
CDAC MUMBAI
CDAC MUMBAI
enter n1
1
enter n2
2
kushal@Mysekai:~$ cat assign.sh
#!/bin/bash
echo "Hello, World!"
echo "enter the string"
read string
echo "${string}"
echo "enter n1"
read n1
echo "enter n2"
read n2
((result = n1 + n2))
echo $result
```

```
kushal@Mysekai:~$ ./assloop.sh
enter ur number
2
even
kushal@Mysekai:~$ ./assloop.sh
enter ur number
3
odd
kushal@Mysekai:~$ cat assloop.sh
```

```
#!/bin/bash
echo "enter ur number"
read n1
if((n1%2==0));then
echo "even"
else
echo "odd"
fi
```

```
kushal@Mysekai:~$ vi assloop3.sh
kushal@Mysekai:~$ chmod +x assloop3.sh
kushal@Mysekai:~$ ./assloop3.sh
1
2
3
```

```
4
5
kushal@Mysekai:~$ cat assloop3.sh
#!/bin/bash
counter=1
while [$counter -le 5]
do
  echo $counter
  ((counter++))
done
kushal@Mysekai:~$ vi cond.sh
kushal@Mysekai:~$ chmod +x cond.sh
kushal@Mysekai:~$ ./cond.sh
File exists
kushal@Mysekai:~$ cat cond.sh
#!/bin/bash
# Check if "file.txt" exists in the current directory
if [ -e "file.txt" ]; then
  echo "File exists"
else
  echo "File does not exist"
fi
kushal@Mysekai:~$ ./cond2.sh
ur number
11
true
kushal@Mysekai:~$ cat cond2.sh
#!/bin/bash
echo "ur number"
read n1
```

```
if [[ $n1 -gt 10 ]];
then
echo " true "
else
echo "false"
fi
```

```
kushal@Mysekai:~$ vi mutable.sh
kushal@Mysekai:~$ ./mutable.sh
enter ur number
3
3 \times 1 = 3
3 \times 2 = 6
3 \times 3 = 9
3 \times 4 = 12
3 x 5 = 15
kushal@Mysekai:~$ cat mutable.sh
#!/bin/bash
echo " enter ur number"
read n1
for(( i = 1; i < 6; i++));do
     n=\$((i*n1))
     echo " $n1 x $i = $n"
done
```

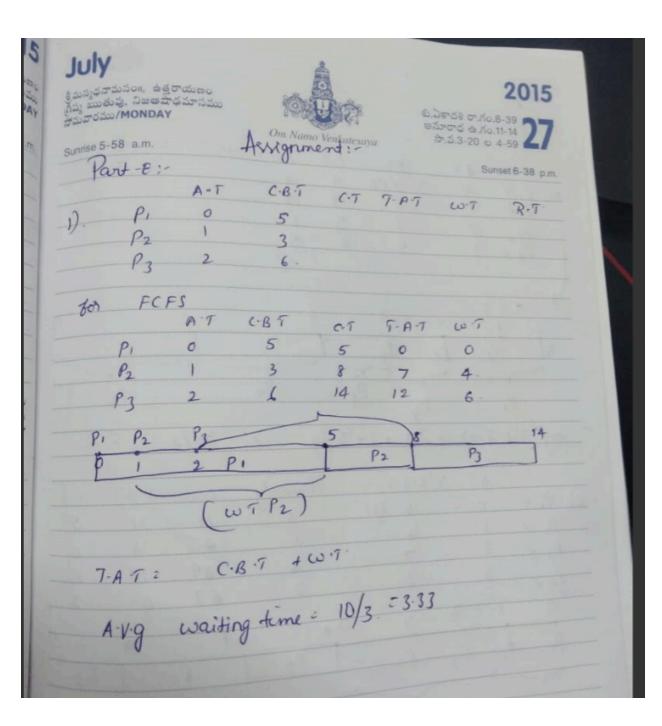
```
kushal@Mysekai:~$ vi loops3.sh
kushal@Mysekai:~$ vi loops3.sh
kushal@Mysekai:~$ chmod +x loops3.sh
kushal@Mysekai:~$ ./loops3.sh
Enter a number (enter a negative number to exit):
2
Square of 2 is: 4
```

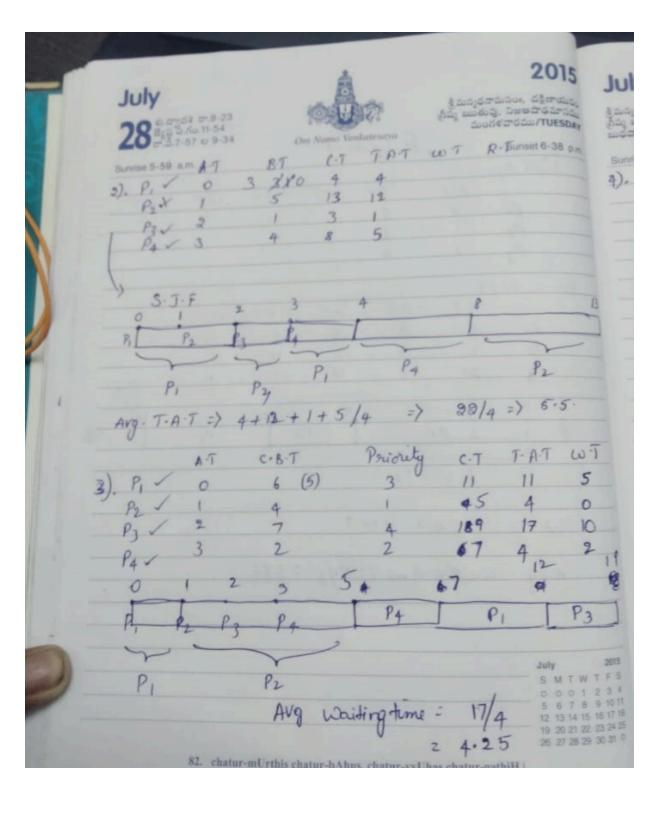
```
Square of 4 is: 16
-2
Exiting the loop.
kushal@Mysekai:~$
#!/bin/bash
echo "Enter a number (enter a negative number to exit):"

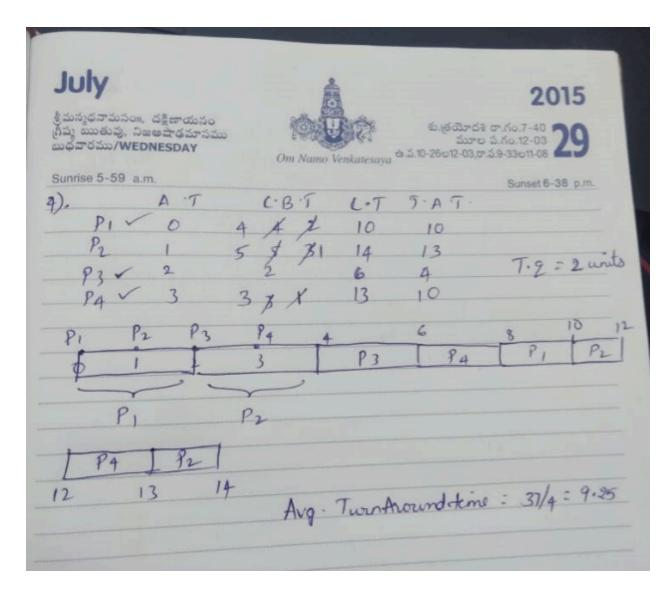
while true; do
    read num

if ((num < 0)); then
    echo "Exiting the loop."
    break
fi

square=$((num * num))
    echo "Square of $num is: $square"
done
```







5) after fork both the values of parent and child are incremented by 1