Part C

Question 1: Write a shell script that prints "Hello, World!" to the terminal.

```
cdac@DESKTOP-E556B3K:~/Assignment2/Part-C$ cat Question_1.sh
#!/bin/bash
echo "Hello World"
cdac@DESKTOP-E556B3K:~/Assignment2/Part-C$ bash Question_1.sh
Hello World
cdac@DESKTOP-E556B3K:~/Assignment2/Part-C$
```

Question 2: Declare a variable named "name" and assign the value "CDAC Mumbai" to it. Print the value of the variable.

```
cdac@DESKTOP-E556B3K:~/Assignment2/Part-C$ cat Question_2.sh
#!/bin/bash

name="CDAC Mumbai"
echo $name
cdac@DESKTOP-E556B3K:~/Assignment2/Part-C$ bash Question_2.sh
CDAC Mumbai
cdac@DESKTOP-E556B3K:~/Assignment2/Part-C$
```

Question 3: Write a shell script that takes a number as input from the user and prints it.

```
cdac@DESKTOP-E556B3K:~/Assignment2/Part-C$ cat Question_3.sh
#!/bin/bash

read -p "Enter the number" number
echo $number

cdac@DESKTOP-E556B3K:~/Assignment2/Part-C$ bash Question_3.sh
Enter the number10
10
```

Question 4: Write a shell script that performs addition of two numbers (e.g., 5 and 3) and prints the result.

```
cdac@DESKTOP-E556B3K:~/Assignment2/Part-C$ cat Question_4.sh
#!/bin/bash
 read -p "Enter the first number" num1
 read -p "Enter the second number" num2

 let sum=num1+num2
 echo "sum of $num1 and $num2 is $sum"

echo  "multiplication of num1 and num2 is: $((num1*num2))"
cdac@DESKTOP-E556B3K:~/Assignment2/Part-C$ bash Question_4.sh
Enter the first number10
Enter the second number20
sum of 10 and 20 is 30
multiplication of num1 and num2 is: 200
```

Question 5: Write a shell script that takes a number as input and prints "Even" if it is even, otherwise prints "Odd".

```
cdac@DESKTOP-E556B3K:~/Assignment2/Part-C$ cat question_5.sh
#!/bin/bash
read -p "enter the number" number
let result=$number%2
if [[ $result == 0 ]]
then
        echo "even"
else
        echo "ODD"
fi
cdac@DESKTOP-E556B3K:~/Assignment2/Part-C$ bash question_5.sh
enter the number18
even
cdac@DESKTOP-E556B3K:~/Assignment2/Part-C$ bash question_5.sh
enter the number5
ODD
```

Question 6: Write a shell script that uses a for loop to print numbers from 1 to 5.

```
cdac@DESKTOP-E556B3K:~/Assignment2/Part-C$ cat question_6.sh
cat: question_6.sh: No such file or directory
cdac@DESKTOP-E556B3K:~/Assignment2/Part-C$ cat Question_6.sh
#!/bin/bash

for ((  i=0 ; i<=5 ; i++))
do
        echo "$i"
done
cdac@DESKTOP-E556B3K:~/Assignment2/Part-C$ bash Question_6.sh
0
1
2
3
4
5
```

Question 7: Write a shell script that uses a while loop to print numbers from 1 to 5.

```
cdac@DESKTOP-E556B3K:~/Assignment2/Part-C$ cat Question_7.sh
#!/bin/bash
i=1
while ((  i<=5))
do
        echo "$i"
        (( i++ ))
done
cdac@DESKTOP-E556B3K:~/Assignment2/Part-C$ bash Question_7.sh
1
2
3
4
5
```

Question 9: Write a shell script that uses the if statement to check if a number is greater than 10 and prints a message accordingly.

```
cdac@DESKTOP-E556B3K:~/Assignment2/Part-C$ bash Question_9.sh
Enter a number:
9
The number 9 is not greater than 10.
cdac@DESKTOP-E556B3K:~/Assignment2/Part-C$ bash Question_9.sh
Enter a number:
81
The number 81 is greater than 10.
cdac@DESKTOP-E556B3K:~/Assignment2/Part-C$ cat Question_9.sh
#!/bin/bash

echo "Enter a number: "
read num

if (( num > 10 )); then
          echo "The number $num is greater than 10."
  else
            echo "The number $num is not greater than 10."
fi
```

Question 10: Write a shell script that uses nested for loops to print a multiplication table for numbers from 1 to 5. The output should be formatted nicely, with each row representing a number and each column representing the multiplication result for that number.

```
cdac@DESKTOP-E556B3K:~/Assignment2/Part-C$ vi Question_10.sh
cdac@DESKTOP-E556B3K:~/Assignment2/Part-C$ cat Question_10.sh
#!/bin/bash

for i in {1..5}
do
        echo "Multiplication Table for $i:"
        for j in {1..10}
        do
                echo "$i x $j = $((i * j))"
        done
echo
done
```

```
cdac@DESKTOP-E556B3K:~/Assignment2/Part-C$ bash Question_10.sh
Multiplication Table for 1:
1 x 1 = 1
1 x 2 = 2
1 x 3 = 3
1 x 4 = 4
1 x 5 = 5
1 x 6 = 6
1 x 7 = 7
1 x 8 = 8
1 x 9 = 9
1 x 10 = 10

Multiplication Table for 2:
2 x 1 = 2
2 x 2 = 4
2 x 3 = 6
2 x 4 = 8
2 x 5 = 10
2 x 6 = 12
2 x 7 = 14
2 x 8 = 16
2 x 9 = 18
2 x 10 = 20
```

```
Multiplication Table for 3:
3 x 1 = 3
3 x 2 = 6
3 x 3 = 9
3 x 4 = 12
3 x 5 = 15
3 x 6 = 18
3 x 7 = 21
3 x 8 = 24
3 x 9 = 27
3 x 10 = 30

Multiplication Table for 4:
4 x 1 = 4
4 x 2 = 8
4 x 3 = 12
4 x 4 = 16
4 x 5 = 20
4 x 6 = 24
4 x 7 = 28
4 x 8 = 32
4 x 9 = 36
4 x 10 = 40

Multiplication Table for 5:
5 x 1 = 5
5 x 2 = 10
5 x 3 = 15
5 x 4 = 20
5 x 5 = 25
5 x 6 = 30
5 x 7 = 35
5 x 8 = 40
5 x 9 = 45
5 x 10 = 50
```

Question 11: Write a shell script that uses a while loop to read numbers from the user until the user enters a negative number. For each positive number entered, print its square. Use the break statement to exit the loop when a negative number is entered.

```
cdac@DESKTOP-E556B3K:~/Assignment2/Part-C$ cat Question_11.sh
#!/bin/bash
echo "please enter the number"

read -p "Enter the number" number
while (( number>0 ))
do
        echo "Square of $number is: $(( number*number))"
        read -p "Enter the number agian" number
done
echo "you enter the negative number"
cdac@DESKTOP-E556B3K:~/Assignment2/Part-C$ bash Question_11.sh
please enter the number
Enter the number10
Square of 10 is: 100
Enter the number agian20
Square of 20 is: 400
Enter the number agian1
Square of 1 is: 1
Enter the number agian-3
you enter the negative number
cdac@DESKTOP-E556B3K:~/Assignment2/Part-C$
```

Question 8: Write a shell script that checks if a file named "file.txt" exists in the current directory. If it does, print "File exists", otherwise, print "File does not exist".

```
cdac@DESKTOP-E556B3K:~/Assignment2/Part-C$ vi Question_8.sh
cdac@DESKTOP-E556B3K:~/Assignment2/Part-C$ ls
Practice       Question_10.sh  Question_2.sh  Question_4.sh  Question_7.sh  Question_9.sh  question_5.sh
Question_1.sh  Question_11.sh  Question_3.sh  Question_6.sh  Question_8.sh  practice
cdac@DESKTOP-E556B3K:~/Assignment2/Part-C$ cat Question_8.sh
#!/bin/bash

if [ -e "file.txt" ]; then
         echo "File exists"
  else
           echo "File does not exist"
fi

cdac@DESKTOP-E556B3K:~/Assignment2/Part-C$ bash Question_8.sh
File does not exist
cdac@DESKTOP-E556B3K:~/Assignment2/Part-C$ touch file.txt
cdac@DESKTOP-E556B3K:~/Assignment2/Part-C$ ls
Practice       Question_10.sh  Question_2.sh  Question_4.sh  Question_7.sh  Question_9.sh  practice
Question_1.sh  Question_11.sh  Question_3.sh  Question_6.sh  Question_8.sh  file.txt       question_5.sh
cdac@DESKTOP-E556B3K:~/Assignment2/Part-C$ bash Question_8.sh
File exists
```