

Assignment 9

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SECTION-3A

ROLL NO.-59

USN- ENG24CY0161

21. Script using if...else to check if a number is even or odd.

```
#!/bin/bash
read -p "Enter a number: " n
if (( n % 2 == 0 ))
then
    echo "Even"
else
    echo "Odd"
fi
```

22. Difference between if and case statements.

Feature	if	case
Use	For conditional comparisons	For pattern matching
Example	if [\$a -gt 10]; then ... fi	case \$a in 1) ... ;; esac

23. Script to find largest of three numbers.

```
#!/bin/bash
read -p "Enter three numbers: " a b c
if ((a >= b && a >= c))
then echo "$a is largest"
elif ((b >= c))
then echo "$b is largest"
else
echo "$c is largest"
fi
```

24. For loop to traverse an array.

```
#!/bin/bash
arr=(123 "Abs" -2.3 'A' 23.56 0)
for val in "${arr[@]}"
do
    echo $val
done
```

25. Script to display names of all files in current directory.

```
#!/bin/bash
for file in *
do
    echo "$file"
```

done

26. Difference between while and until loops.

Loop Condition Type Executes When

while True	Condition true
until False	Condition false

27. Countdown timer script using while loop.

```
#!/bin/bash
```

```
count=5
```

```
while [ $count -gt 0 ]
```

```
do
```

```
    echo "$count"
```

```
    sleep 1
```

```
    ((count--))
```

```
done
```

```
echo "Time's up!"
```

28. Use of break and continue in loops.

```
#!/bin/bash
```

```
for i in {1..5}
```

```
do
```

```
    if [ $i -eq 3 ]; then continue; fi
```

```
if [ $i -eq 5 ]; then break; fi
echo $i
done
```

29. Script to check if a file exists or not.

```
#!/bin/bash
read -p "Enter filename: " f
if [ -e "$f" ]; then
    echo "File exists"
else
    echo "File not found"
fi
```

30. Script to calculate factorial of a number using for loop.

```
#!/bin/bash
read -p "Enter number: " n
fact=1
for ((i=1;i<=n;i++))
do
    fact=$((fact*i))
done
echo "Factorial = $fact"
```
