

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"
```
