

LINUX PROGRAMMING

ASSIGNMENT-9

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Q1.Script to check if a number is even or odd.

Ans:

```
"Enter a number: " n  
if (( n % 2 == 0 )); then  
    echo "Even"  
else  
    echo "Odd"  
fi
```

Q2.Difference between if and case statements.

Ans:

Aspect	if	case
Usage	Multiple conditions	Pattern matching
Syntax	if [condition]; then ... fi	case variable in pattern) ... esac
Example	if [\$x -eq 5]; then ... fi	case \$x in 5) echo "Five" ;; esac

Q3.Script to find the largest of three numbers.

Ans:

```
read -p "Enter three numbers: " a b c  
if [ $a -ge $b ] && [ $a -ge $c ]; then  
    echo "$a is largest"  
elif [ $b -ge $a ] && [ $b -ge $c ]; then  
    echo "$b is largest"  
else  
    echo "$c is largest"  
fi
```

Q4.Using for loop to traverse an array.

Ans:

```
arr=(123 "Abs" -2.3 'A' 23.56 0)
for i in "${arr[@]}"; do
    echo $i
done
```

Q5.Script to list all files in current directory.

Ans:

```
for file in *; do
    echo "$file"
done
```

Q6.Difference between while and until loops.

Ans:

Loop	Condition Type	Executes While
while	True	Condition is true
until	False	Condition is false

Q7.Countdown timer script using while loop.

Ans:

```
count=10
while [ $count -gt 0 ]; do
    echo $count
    sleep 1
    ((count--))
done
echo "Time's up!"
```

Q8.Using break and continue in loops.

Ans:

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

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

```
    continue
```

```
fi
```

```
if [ $i -eq 5 ]; then
```

```
    break
```

```
fi
```

```
echo $i
```

```
done
```

Q9. Script to check if a file exists or not.

Ans:

```
read -p "Enter filename: " file
```

```
if [ -e "$file" ]; then
```

```
    echo "File exists"
```

```
else
```

```
    echo "File does not exist"
```

```
fi
```

Q10. Script to calculate factorial using for loop.

Ans:

```
read -p "Enter number: " n
```

```
fact=1
```

```
for ((i=1; i<=n; i++))
```

```
do
```

```
    fact=$((fact * i))
```

```
done
```

```
echo "Factorial: $fact"
```

