

Practice Set 2

Q1 write a program to apply Logical AND operator on Two operands.

Ans –

```
a = int(input("Enter the 1st number: "))
b = int(input("Enter the 2nd number: "))
if a > 20 and b > 20:
    print("a and b are greater than 20")
else:
    print("Either a or b is incorrect Or None of them is Correct")
```

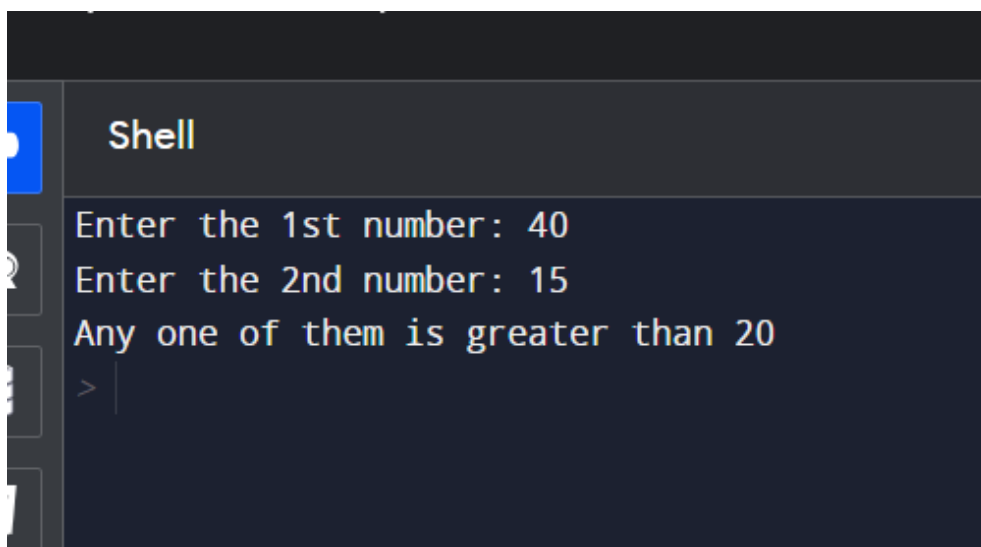
Shell

```
Enter the 1st number: 35
Enter the 2nd number: 25
a and b are greater than 20
> |
```

2. Write a program to apply Logical OR operator on two operands.

Ans –

```
a = int(input("Enter the 1st number: "))
b = int(input("Enter the 2nd number: "))
if a > 20 or b > 20:
    print("Any of them is greater than 20")
else:
    print("No one is greater than 20")
```

A screenshot of a terminal window with a dark background. The title bar of the window is labeled "Shell". The terminal shows the execution of a Python program. It prompts the user to "Enter the 1st number:" and the user enters "40". It then prompts for "Enter the 2nd number:" and the user enters "15". Finally, it prints the output "Any one of them is greater than 20". A prompt character ">" is visible on the line following the output.

```
Shell
Enter the 1st number: 40
Enter the 2nd number: 15
Any one of them is greater than 20
> |
```

3. Write a program to apply Logical NOT operator on an operand.

Ans –

a = 20

if not a:

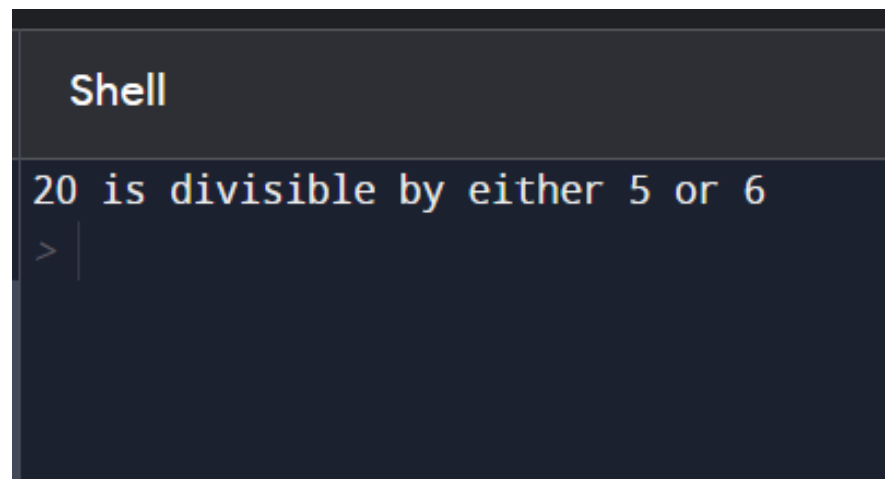
 print("Bool value of a is True")

if not(a % 3==0 or a%5==0):

 print("20 is not divisible by either 5 or 6")

else:

 print("20 is divisible by either 5 or 6")

A screenshot of a terminal window with a dark background. The title bar at the top says "Shell" in white. The terminal displays the output of a Python program: "20 is divisible by either 5 or 6" in a light blue/cyan monospace font. Below the output, there is a prompt character ">" followed by a vertical cursor line, indicating the terminal is ready for the next command.

```
Shell
20 is divisible by either 5 or 6
> |
```

4. Write a program to perform Bitwise AND operation on a = 15 and b = 17.

Ans –

a = 15

b = 17

result = a & b

print("Result of a & b :", result)

Shell

Result of a & b : 1

> |

5. Write a program to perform Bitwise OR operation on a = 15 and b = 17.

Ans -

a = 15

b = 17

result = a | b

print("Result of a | b :", result)

Shell

Result of a | b : 31

> |

6. Write a program to perform Bitwise XOR operation on a = 15 and b = 17.

Ans –

```
a = 15
```

```
b = 17
```

```
result = a ^ b
```

```
print("Result of a ^ b :", result)
```



The screenshot shows a terminal window with a dark background. At the top, the word "Shell" is displayed in a light blue font. Below it, the output of the program is shown in a light blue font: "Result of a ^ b : 30". At the bottom, there is a prompt character ">" followed by a vertical line, indicating the cursor is ready for input.

Shell

Result of a ^ b : 30

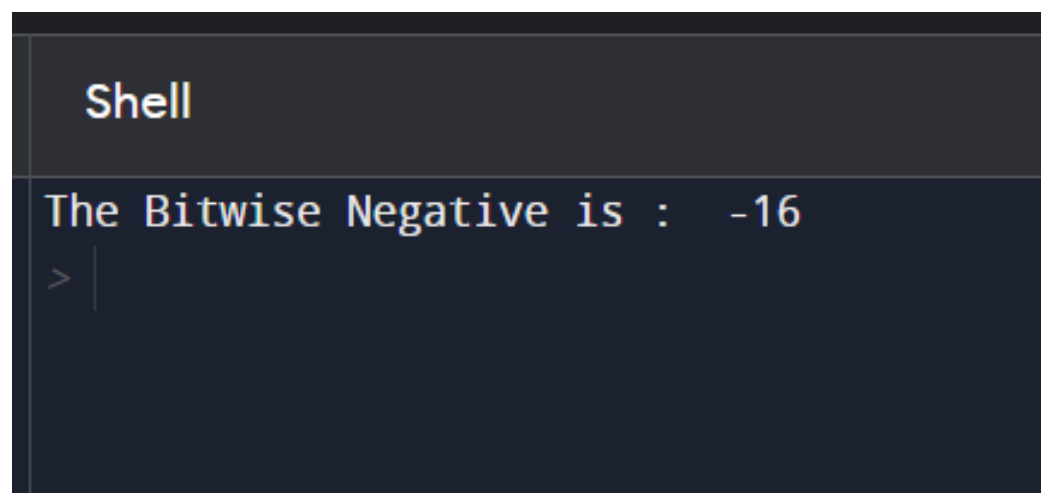
> |

7. Write a program to perform Bitwise negation operation on a = 15.

Ans –

a = 15

print ("The Bitwise Negative is : ", ~a)



The screenshot shows a terminal window with a dark background. The title bar at the top is dark gray with the word "Shell" in white. The main area of the terminal is dark blue. It displays the output of a program: "The Bitwise Negative is : -16". Below this output, there is a prompt character ">" followed by a vertical line, indicating the next command input.

8. Write a program to Swap the Contents of two Numbers using Bitwise XOR Operation.

Ans –

```
a = int(input("Enter value of a = "))
```

```
b = int(input("Enter value of b = "))
```

```
a = a ^ b
```

```
b = a ^ b
```

```
a = a ^ b
```

```
print("The Result After Swapping given two Numbers is:")
```

```
print("First Number = ", a)
```

```
print("Second Number = ", b)
```

Shell

```
Enter value of a = 10
```

```
Enter value of b = 20
```

```
The Result After Swapping given two Numbers is:
```

```
First Number = 20
```

```
Second Number = 10
```

```
> |
```


Shell

Enter value of a = 10

Enter value of b = 20

The Result After Swapping given two Numbers is:

First Number = 20

Second Number = 10

> |