**PYTHON PROGRAMMING ASSIGNMENT-2**

**Q.N.1:- Write a program for Arithmetic operators .**

**Code:-**

**a=float(input("Enter the number:"))**

**b=float(input("Enter the number:"))**

**#performing Arithmetic operator**

**addition=a+b #addition operation**

**substraction=a-b #substraction operation**

**multiplication=a\*b #Multiplication operation**

**divison=a/b #division operation**

**modulus=a%b #modulus operation**

**#displaying result**

**print("\nArithmetic operation:")**

**print("addition:",a+b)**

**print("substraction:",a-b)**

**print("multiplication:",a\*b)**

**print("divison:",a/b)**

**print("modulus:",a%b)**

**Output:-**

**Enter the number:10**

**Enter the number:2**

**Arithmetic operation:**

**addition: 12.0**

**substraction: 8.0**

**multiplication: 20.0**

**divison: 5.0**

**modulus: 0.0**

**Q.N.2:- Write a program for Assignment operators .**

**Code:-**

**a =9**

**b=10 #AND**

**print("Bitwise AND (a & b):", a & b) # OR**

**print("Bitwise OR (a | b):", a | b) # XOR**

**print("BitwiseXOR(a^b):",a^b) # NOT**

**print("Bitwise NOT (~a):", ~a) #Compliment**

**print("LeftShift(a<<1):",a <<1) ) # leftShift**

**print("RightShift(a>>1):",a>>1) ) # RightShift**

**Output:-**

**Bitwise AND (a & b): 8**

**Bitwise OR (a | b): 11**

**BitwiseXOR(a^b): 3**

**Bitwise NOT (~a): -10**

**LeftShift(a<<1): 18**

**RightShift(a>>1): 4**

**Q.N.3:- Write a program for Bitwise operator .**

**Code:-**

**a=int(input("Enter the number:"))**

**b=int(input("Enter the number:"))**

**# Performing bitwise operations**

**bitwise\_and = a & b # AND**

**bitwise\_or = a | b # OR**

**bitwise\_xor = a ^ b # XOR**

**bitwise\_not\_a = ~a # NOT (complement)**

**left\_shift = a << 2 # Left shift by 2**

**right\_shift = a >> 2 # Right shift by 2**

**# Displaying results**

**print(f"Bitwise AND of a and b is: {bitwise\_and}")**

**print(f"Bitwise OR of a and b is: {bitwise\_or}")**

**print(f"Bitwise XOR of a and b is: {bitwise\_xor}")**

**print(f"Bitwise NOT of a is: {bitwise\_not\_a}")**

**print(f"Left shift of a by 2 positions is: {left\_shift}")**

**print(f"Right shift of a by 2 positions is: {right\_shift}")**

**Output:-**

**Enter the number:8**

**Enter the number:7**

**Bitwise AND of a and b is: 0**

**Bitwise OR of a and b is: 15**

**Bitwise XOR of a and b is: 15**

**Bitwise NOT of a is: -9**

**Left shift of a by 2 positions is: 32**

**Right shift of a by 2 positions is: 2**

**Q.N.4:-Write a program to calculate Greatest of three numbers.**

**Code:-**

**a=float(input("Enter the first number:"))**

**b=float(input("Enter the second number:"))**

**c=float(input("Enter the third number:"))**

**if a>=b and a>=c: #>= is a realtional operator**

**print("a is greatest number:",a)**

**elif b>=a and b>=c: #>= is a realtional operator**

**print("b is greatest number:",b)**

**else:**

**print("C is greatest number:",c)**

**Output:-**

**Enter the first number:8**

**Enter the second number:10**

**Enter the third number:9**

**b is greatest number: 10.0**

**PROGRAMME FOR CALCULATING AREAS OF SHAPE :-**

**Q.N.1:- Calculate the area of Circle .**

**Code:-**

**r=float(input("Enter the radius:")) #r=radius**

**area=3.14\*r\*r #formula of area of the circle**

**print("Calculate area of the circle:",area)**

**Output:-**

**Enter the radius:10**

**Calculate area of the circle: 314.0**

**Q.N.2:- Calculate the area of Triangle.**

**Code:-**

**b=float(input("Enter the breadth:"))#b=breadth**

**h=float(input("Enter the height:"))#h=height**

**area=0.5\*b\*h #formula of area of the triangle**

**print("Calculate area of triangle:",area)**

**Output:-**

**Enter the breadt:6**

**Enter the height:5**

**Calculate area of triangle: 15.0**

**Q.N.3:- Calculate the area of Rectangle.**

**Code:-**

**l=float(input("Enter the length:")) #length**

**b=float(input("Enter the breadth:")) #breadth**

**area=l\*b #formula for area of rectangle**

**print("Calculate area of the rectangle:",area)**

**Output:-**

**Enter the length:6**

**Enter the breadth:4**

**Calculate area of the rectangle: 24.0**

**Q.N.4:- Calculate the area of Square.**

**Code:-**

**s=float(input("Enter the side:"))#side**

**area=s\*s #formula for the area of sqaure**

**print("Calculate area of the square:",area)**

**Output:-**

**Enter the side:10**

**Calculate area of the square: 100.0**