**21 May**

**Python Basic - 2**

Q.1. Create two int type variables, apply addition, subtraction, division and multiplications and store the results in variables. Then print the data in the following format by calling the variables:

First variable is \_\_ & second variable is \_\_

**Ans:-**

Fist variable is **A** & second variable is **B** .

Addition: \_\_ + \_\_ = \_\_

**Ans:-**

**A=15**

**B=20**

**C= A + B**

**Print(“C”)**

Subtraction: \_\_ - \_\_ = \_\_

**Ans:-**

**A=15**

**B=20**

**C= A - B**

**Print(“C”)**

Multiplication: \_\_ \* \_\_ = \_\_

**Ans:-**

**A=15**

**B=20**

**C= A \* B**

**Print(“C”)**

Division: \_\_ / \_\_ = \_\_

**Ans:-**

**A=15**

**B=20**

**C= A / B**

**Print(“C”)**

Q.2. What is the difference between the following operators:

(i) ‘/’ & ‘//’

**Ans:- “/” Normal division, This operator shows the result as a division of the given expression with decimals and “//”Floor division, this operator shows the result as a lowest possible value of an expression without decimal point.**

(ii) ‘\*\*’ & ‘^’

**Ans:- “\*\*” Exponential operator, this operator shows the result as a Power of a first variable for e.g. a=2 & b=3 then it shows result as “6”. And “^”XOR Bitwise operator this operator shows the result as** **which outputs 1 when either of the operands is 1 (one is 1 and the other one is 0), but both are not 1, and both are not 0.**

Q.3. List the logical operators.

**Ans:-**

|  |  |  |
| --- | --- | --- |
| **Operator** | **Name** | **Example result** |
| **&&** | **AND. True only if both operands are true.** | **0 (only one is true)** |
| **||** | **OR. True if either operand is true.** | **1 (the first test is true)** |
| **∼** | **NOT. Changes true to false and false to true.** | **1 (the strings are not equal)** |

Q.4. Explain right shift operator and left shift operator with examples.

**Ans:- The bitwise shift operators are the right-shift operator ( >> ), which moves the bits of an integer or enumeration type expression to the right, for e.g. 10<<2 = 40**

**and the left-shift operator ( << ), which moves the bits to the left., for e.g. 10>>1 = 5**

Q.5. Create a list containing int type data of length 15. Then write a code to check if 10 is present in the list or not.

def createlist(r1,r2):

    return [item for item in range(r1,r2+1)]

r1,r2 = 0,14

print(createlist(r1,r2))

i=10

if i in createlist(r1,r2):

    print("exist")

else:

    print("not exist")