Additional Approach

Implementation:

Code in AdditionalsymbSubmission.py

#step 1

In which First I have Load the json Data of both the testdata(testData1- A complete program without any unknown constant parameters, testData2- A program with some unknown constant parameters.)

#step 2

Then we create the test suite (all input and output from testData1)

#step 3

Then we take testData2 and take path condition PC (from 'contraints') and implies it to this corresponding output(present in 'symbenc') and we are taking AND of all of these statements

Program_2_logic=AND(PC1->output1,PC2->output2,……)

#step 4

Then we by using test suite of testData1 we create the following equation and give it to solver:-

AND((Input1->AND(Program_2_logic,Output1), (Input2->AND(Program_2_logic,Output2),

(Input3->AND(Program_2_logic,Output3), (Input4->AND(Program_2_logic,Output4),

……..)

Limitation:

There are some Limitation with this approach that I have discussed here:

1. Code will give sat(satisfiable) only when both programs has same structure. If structure both the program are different then code may give incorrect result.
2. It only work for two variable program and both the variable must be 'x' and 'y'
3. Code will not give correct result for unknown constants if we give the unknown constants inside conditional statements like:
   If :c1>25 [… …]
   Here for this type of program code will not give correct result.