

The output of the given code snippet will be the following:  
-9 4294967287 4294967286 -10 -37 65527

#### EXPLANATION:

Line 1: As my roll number is 2019111009, and it is less than the maximum value that 'int' data type can accommodate, the operation  $2019111009 \% 100$  is performed without any conflict, and the value (9) is stored in x.

Line 2: The value  $-1 * (9)$ , i.e., (-9) is stored in the variable 'a' of int data type

Line 3: As the value of a, i.e., '-9', is stored in 2's complement form in memory, when a is converted to unsigned int data type, its value will be the difference of the maximum value of unsigned int data type and (9-1), as we are referring to 2s complement representation here.  
Hence the value  $(4294967295 - 8)$ , i.e., (4294967287) is stored in variable 'b', which is of unsigned int data type

Line 4: The maximum value of unsigned data type, which is (4294967295), is UINT\_MAX.  
Hence the value  $(4294967295 - 9)$ , i.e., (4294967286), is stored in the variable 'c', which is of unsigned int data type (as  $x = 9$ )

Line 5: When the unsigned int 'c' is converted to int data type, the most significant bit is 1, hence, considering the 2s complement of unsigned int 'c', it is stored as (-10) in the variable d.

Line 6: The value  $(65490 + 9)$ , i.e., (65499) is stored in variable 'p' of int data type.

Line 7: When the value (65499), is converted to short int, the initially four byte number, is converted to two bytes, by considering its 16 least significant bits, which gives us the most significant bit as 1. Hence, the actual value is stored as its 2s complement with a negative sign, which is (-37), that is stored in 'e' which is of unsigned int data type.

Line 8: The value a, which is of int data type, is converted to unsigned short data type, by considering its least significant 16 bits (2 bytes), from its 4-byte integer representation, without considering the most significant bit to be the sign. Hence, it turns out to be (65527), which is stored in the variable 'f' which is of unsigned short data type.