



PROFESSIONAL TRAINING INSTITUTE

An ISO9001:2015 certified training institute



PROFESSIONAL TRAINING INSTITUTE

Assignment - V



PROFESSIONAL TRAINING INSTITUTE

An ISO9001:2015 certified training institute

1. Assignment

- a. Print all ASCII character using `%d = %x = %c`.
- b. Print the hex and decimal value of following ascii characters A, a, Z, z, 0 , 5.
- c. Take the signed char and copy into int. print char and int and analyze the output.
- d. Take unsigned char and copy into int and print char and int, analyze the output.
- e. Initialize int with -5 and copy into char print both int and char, analyze the output.
- f. Initialize int with -458 and copy value into unsigned char, print, analyze output.
- g. Implements following in program with menu shown. Run the program until user ask to exit.
 - a) Int `get_nbits(int num, int n)`
 - b) Int `replace_nbits (int num, int n, intval)`
 - c) `Get_nbits_from_pos (int num, int n, int pos)`
 - d) Int `toggle_bits_from_pos (int num, int n, int pos)`
- h. Repeat question 7 using macro.

2. Theory question need to clear

- a. What is the ascii value of 5, and z?
- b. What is the use of ASCII number? How to print ASCII number?
- c. Inside computer/microcontroller does everything will be ASCII or hex or binary?
- d. What is signed number? Where we use signed number practically?
- e. Consider `int a = -5; a=a>>20;` what will be the output? Signed or unsigned?
- f. Write a macro to set first n bits of a given 32 bit number?
- g. Write a macro to clear first n bits of a given 32 bit number?