Homework Assignment 13

Q1. State True/False :

i. A pointer need not always represent a memory address
ii. Adding 1 to a pointer doesn't necessarily increment the value by 1
iii. The array **arr** and the string **"Hello"** represent pointer values
iv. The size of a pointer is related to the size of the variable it points to
v. A function can return multiple pointer values

Q2. Fill in the blanks.

i. The ----- operator represents the address of a variable and ----- operator retrieves the value stored at the address

ii. Any expression that evaluates to an -------- can be used as a pointer

iii. A --------- pointer can never point to an existing object

Q3. Answer the following :

i. If **p** which is set to **&x** in main, is passed as an argument to a function, can the later change the value of **x**?

ii. Write a program to declare and initialize two variables **x** and **y** to **10** and **20** respectively. Use two pointers to sum the values and print the result.

iii. Write a program to declare three pointers of type **short *, int * and float *** pointing to regular variables. Prove that the size of the pointer has no relation to the size of the variable pointed to.

iv. Use a pointer to prove the size of the char data type is 1 byte

v. Use pointer to print the lower case letters of the English alphabet