**Mid 9**

**Task#1**

Write a program that prompts the user to type a hex number of four hex digits or less, and outputs it In binary on the next line. If the user enters an illegal character, he or she should be · prompted to begin again. Accept only uppercase letters.

***Note: please write functions for binary input and hex output.***

***Sample execution:***

TYPE A HEX NUMBER (0 TO FFFF): **1a**

ILLEGAL HEX DIGIT, TRY AGAIN: **1ABC**

IN BINAPY IT IS **0001101010111100**

Your program may ignore any Input beyond four characters.

**Task#2**

Write a program that prompts the user to enter two numbers, one number is in binary format of up to 8 binary digits each and other is in hex format of up to 2 hex digits each and prints their sum on the next line in binary and hex. If the user enters an illegal character, he or she should be prompted to begin again. Each input ends with a carriage return.

***Note: please write functions for binary and hexa input/output.***

***Sample execution:***

TYPE A BINARY NUMBER, UP TO 8 DIGITS: **11001010**

TYPE A HEX NUMBER, UP TO 8 DIGITS:**9C**

THE BINARY SUM **101100110**

THE HEX SUM **166**

THE DECIMAL SUM 358

**Task#3**

Writ; a program that lets the user type some text, consisting ofwords separated by blanks, ending with a carriage return, and displays the text in the same word order as entered, but with the letters in each word reversed. For example, "this is a test" becomes "siht si a tset". *Hint:* modify program PGM8\_2.ASM in section 8.3.

**Important Notes:**

**Make Sure that you have not saved your program in M drive(your ftp)**

**Properly Commented Program will get Extra Marks**

**The output of your program should be same as given in sample execution**

**Be Prepared for a detailed viva**

**DO NOT COPY OTHERWISE YOU WILL BE AWARDED ‘ZERO’ IN ALL PREVIUOS LABS**