CSE2006 – Microprocessor and Interfacing – WS 2020-21

**(Slot – D2)**

Digital Assignment 2

# Instructions for the assignment

1. Write the program in MASM or any other assembler that is comfortable for you.
2. Submit the assignment as a **PDF document** in the following format Name, Reg. No

Course code, Course name Digital Assignment 2.

Aim:

Tools used:

Algorithm:

Assembly Language Program:

Result:

Observation/Conclusion:

1. For Assembly language program and result, you must upload the screenshots of the same.
2. Total marks for Assignment-2 is 20 marks. The mark split up for each program is given beside each question.
3. Make sure that you submit the assignment on time, so that you can obtain full marks.

# Questions

1. Write a program to print the value ‘5’ on to the printer using BIOS interrupt. Explain how DOS interrupts are different from BIOS interrupts. **(5 marks)**
2. a) Write an ALP to create a new file, write the string, “Microprocessor and Interfacing – CSE2006 – D2” in the file. **(5 marks)**

b) Write an ALP to create a new file and rename the file. The new name must be your first name. For eg., If “Newfile” is the file that I have created, then I should write an ALP to rename it as “Florence”.

1. Design a programmable timer using 8254 and 8086. Interface 8254 at an address 0080H for counter 1. Write ALPs for following calculations. Consider that 8254 and 8086 work at 6 MHz frequency 2 MHz respectively.
2. To generate a square wave of 1 ms.
3. To interrupt the processor after 5 ms. **(10 marks)**