Assignment 1
Total marks 10

1   Question 1

[Total 5] Draw a Write bus cycle where there will be at least 2 wait states and then explain the total diagram in detail. You have to do proper labelling of the figure and write the explanation of each of the pin and also maintain the sequence of the states. (T1,T2,T3,.....)

2   Question 2

[Total 5] Let us have some value in the memory address XXXXX h. If we want to load the value in AX register, then the assembly command will be
MOV AX, [XXXXXh].
Now let 16 bit word 6BC1h is stored in 2 contiguous memory address 12BE7h and 12BE8h.
We want to load this value into CX register.
a) What would be the assembly command? [1]
b) How many bus cycles (read or write) will be needed for this assembly instruction and give proper reasons. [2]
c) Draw the connection for data transfer between processor and memory for 2 byte data. [1]
d) Write the signals on the A19-A0, D15-D0, (BHE)' pins for bus cycles. [1]

N.B. Where you have to draw something, you can draw them by using any software or by pen and pencil. In case of text answering, Microsoft Word is recommended. Whatever you use, you have to make a single PDF of your assignment and then submit it on your respective Google Classroom. While submitting, the convention of file name will be your id - section. Suppose your id is 160217 and you are from sec 01. Then the name will be 01-160217.pdf. You can get help from slides, text books and online but don't just copy paste it. These will be much helpful for your upcoming quiz and you have to submit it before the quiz.
Deadline: 1 st April, 2021