PSG COLLEGE OF TECHNOLOGY, COIMBATORE – 641 004

DEPARTMENT OF APPLIED MATHEMATICS AND COMPUTATIONAL SCIENCES

M.Sc Software Systems / Semester III

18XW37 - Embedded System Lab

Final Lab Test

A

Date: 21/11//2020 **Duration: 2Hrs**

ROLL NO	NAME	EXAM ID/PWD	Student's Signature
		«login» / «pwd»	

Analysis / Design (10)	Implementation (15)	Output (5)	Total out of 30	Faculty's Signature

Design and implementation of Arithmetic and Math operations

Design and implement an ALP for the following math operation. It should be designed in form of single interrupts and takes parameters to choose the options. Assign an interrupt number as 75 for math operations and use AH register as operation options. Operations to be supported

1. MIN (A,B), 2. MAX(A,B), 3. AVG (A,B), 4. SWAP(A,B), 5. MUL (A,B), 6. DIV(A,B)

Example: If INT 75 is raised with above option in AH the desired operation should be done. You can use/fix your own register for the operations. For MUL and DIV don't use MUL, IMUL, DIV, or IDIV instruction. Implement your own algorithm to perform the operations.

Happy Programming ☺

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Design and implementation of Set operation

Consider two finite numbers of integers stored in the memory location and treat them as Set. Do the following set operation on the data like union, intersection and difference. The resultant of the operation must be stored in another location. Each operation has to be implemented in single interrupt with choosing the option in AH register. For example INT 80 is called with AH register as option parameter.

Happy Programming ☺