



Society for Computer Technology and Research's
Pune Institute of Computer Technology
Department of Computer Engineering

LAB SCHEDULE

Date: 31/01/2023

DEPARTMENT: Computer Engineering

CLASS: S.E

ACADEMIC YEAR: 2022-23

SEMESTER: II

SUBJECT: _Microprocessor (210257)

| LAB EXPT. NO | PROBLEM STATEMENT | LAST DATE FOR COMPLETION |
|--------------|---|--------------------------|
| 1 | Write X86/64 ALP to five hexadecimal numbers from user and store them in an array and display the accepted numbers. | 27 Feb 2023 |
| 2 | Write X86/64 ALP to accept the string and to display its length | 06 March 2023 |
| 3 | Write X86/64 ALP to find the largest of the given Byte/Word/Dword/64 bit numbers | 13 March 2023 |
| 4 | Write a switch case driven X86/64 ALP to perform 64 hexadecimal arithmetic operations (+,-,*,/) using suitable macros. Define procedure for each operation. | 20 March 2023 |
| 5 | Write X86/64 ALP to count number of positive and negative numbers from the array | 27 March 2023 |
| 6 | Write X86/64 ALP to convert 4-digit Hex number into its equivalent BCD number and 5-digit BCD number into its equivalent HEX number. Make your program user friendly to accept the choice from user for: (a) HEX to BCD (b) BCD to HEX (c) EXIT. (Display proper strings to prompt the user while accepting the input and displaying the result. (wherever necessary, use 64-bit registers). | 17 April 2023 |
| 7 | Write X86/64 ALP to detect protected mode and display the values of GDTR, LDTR, IDTR, TR and MSW Registers. Also identify CPU type using CPUID instruction. | 24 April 2023 |
| 8 | Write X86/64 ALP to perform overlapped block transfer with string specific instructions. Block containing data can be defined in the data segment. | 3 May 2023 |

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|----|---|---------------------------|
| 9 | Write X86 ALP to find, a) Number of Blank spaces b) Number of lines c) Occurrence of a particular character. Accept the data from the text file. The text file has to be accessed during Program_1 execution and write FAR PROCEDURES in Program_2 for the rest of the processing. Use of PUBLIC and EXTERN directives is mandatory | 10 May 2023 |
| 10 | Write x86 ALP to find the factorial of a given integer number on a command line by using recursion. Explicit stack manipulation is expected in the code. | 17 May 2023 |
| | Question -Answer session with students about all aboveexperiments | At the end of term |

Head of Department
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