PUNE INSTITUTE OF COMPUTER TECHNOLOGY

Department of Computer Engineering

Academic Year: 2021-22

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CLASS: S.E.   **SEMESTER: II**

INDEX OF LAB EXPERIMENTS

SUBJECT: MICROPROCESSOR LAB (210257)

Expt No.	TOPIC OF ASSIGNMENT	Revised on
1	Write X86/64 ALP to five hexadecimal numbers from user and store them in an array and display the accepted numbers.	03/01/2022
2	Write X86/64 ALP to accept the string and to display its length.	03/01/2022
3	Write X86/64 ALP to find the largest of the given Byte/Word/Dword/64 bit numbers.	03/01/2022
4	Write a switch case driven X86/64 ALP to perform 64 hexadecimal arithmetic operations (+,-,*,/) using suitable macros. Define procedure for each operation.	03/01/2022
5	Write X86/64 ALP to count number of positive and negative numbers from the array.	03/01/2022
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).	03/01/2022
7	Write X86/64 ALP to detect protected mode and display the values of GDTR, LDTR, IDTR, TR and MSW Registers. Also indentify CPU type using CPUID instruction.	03/01/2022

8	Write X86/64 ALP to perform overlapped block transfer with string specific instructions. Block containing data can be defined in the data segment.	03/01/2022
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	03/01/2022
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.	03/01/2022

Subject Coordinator   **Head of Department**

Mr. R. V. Bidwe   **Prof. M. S. Takalikar**