

SUBJECT: MICROPROCESSOR LAB (MPL)	
NAME:	
CLASS: SE COMP	ROLL NO.:
SEMESTER: SEM-II	YEAR: 2023-24
DATE OF PERFORMANCE:	DATE OF SUBMISSION:
EXAMINED: Prof. G. B. Aochar	

Assignment No-08

Title:- Overlapped block data transfer.

Assignment Name: Write X86/64 ALP to perform overlapped block transfer with string specific instructions, Block containing data can be defined in the data segment.

Objective-

- To study various instruction related to
 - a) Arithmetic operations.
 - b) Data transfer operations.
 - c) Branch operations.
 - d) String operations.
- To understand how to define block in data segment.

Outcome-

- Students will be able to write code for block data transfer.
- Students will be able to understand different assembly language instruction.

Prerequisite -

System call of Unix for Assembly language Program.

Hardware Requirement-

Desktop PC

Software Requirement-

Ubuntu 14.04,

Assembler: NASM
version 2.10.07

Linker: ld

Introduction:-

Guidelines for the algorithm:

Overlapped Block Data Transfer

- 1) Initialize Data section.
- 2) Define source array & destination array with 5 numbers..
- 3) Initialize destination array with all zeros.
- 4) Copy source array to destination array as it is.
- 5) Take index from destination array from where you want to do overlapping.
- 6) Find value N.
- 7) Move the first element of source array to index location mention in previous step to destination array.
- 8) Decrement count N.
- 9) Repeat step 7,8 till count N=0
- 10) Display both source and destination arrays.

Conclusion:- Hence we implemented an ALP to overlapped block data transfer.

Questions:-

2. Explain String Specific Instruction?
3. Explain Stack manipulation instructions?