FACULTY OF ENGINEERING & TECHNOLOGY

PARUL INSTITUTE OF ENGINEERING & TECHNOLOGY

BACHELOR OF TECHNOLOGY

COMPUTER ORGANIZATION AND MICROPROCESSOR ARCHITECTURE (303105211)

LABORATORY MANUAL

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Sr. No.	Aim	Start Date	Performance Date	Sign	Marks
1	**PARTA:**ADDITIONOFTWO8BITNUMBERSUSING8085.**PART B:** WRITE A PROGRAM TO ADD TWO 16-BITNUMBERS STORED INREGISTERS OR MEMORYLOCATIONS. **PARTC:**8BIT SUBTRACTION				
2	**PARTA:**WRITEAN8085ASSEMBLYLANGUAGETOPERFORM MULTIPLICATION OF TWO 8 BIT NOS. **PARTB:**WRITEAN8085ASSEMBLYLANGUAGETO PERFORMDIVISIONOFTWO8BIT NOS.				
3	WRITEAPROGRAMTOADDBLOCKOF8-BITDATASTORED INMEMORYLOCATIONS.				
4	**PARTA:**WRITEAN8085ASSEMBLYLANGUAGEPROGRAMTO FIND THE MINIMUM FROM TWO 8-BIT NUMBERS. **PARTB:**WRITEAN8085ASSEMBLYLANGUAGEPROGRAM TOGETTHEMINIMUMFROMBLOCKOFN8-BITNUMBERS.				
5	**PARTA:**WRITEAN8085ASSEMBLYLANGUAGEPROGRAMTO FIND THE MAXIMUM FROM TWO 8-BIT NUMBERS.**PARTB:**WRITEAN8085ASSEMBLYLANGUAGEPROGRAM TOGETTHEMAXIMUMFROMBLOCKOFN8-BITNUMBERS.				
6	**PART A:** WRITE AN ASSEMBLY LANGUAGE PROGRAM TOSORT DATA IN ASCENDING ORDER. **PARTB:**WRITEANASSEMBLYLANGUAGEPROGRAMTO SORTDATAINDECENDINGORDER.				
7	**PARTA:**WRITEAN8085ASSEMBLYLANGUAGEPROGRAMTO CONVERT GIVEN BCD NUMBER INTO ITS EQUIVALENTBINARYNUMBER. **PARTB:**WRITEAN8085ASSEMBLYLANGUAGEPROGRAM TO CONVERT GIVEN BINARY NUMBER INTO ITSEQUIVALENT BCD NUMBER.				
8	**PARTA:**WRITEAN8085ASSEMBLYLANGUAGEPROGRAMTO CONVERT GIVEN BINARY NUMBER INTO ITSEQUIVALENT ASCII NUMBER. **PARTB:**WRITEAN8085ASSEMBLYLANGUAGEPROGRAM TOCONVERTGIVENASCIINUMBERINTOITSEQUIVALENTBI NARYNUMBER.				
9	WRITEANASSEMBLYLANGUAGEPROGRAMIN8085 CALCULATETHESUMOFASERIESOFEVENNUMBERS.				
10	WRITEANASSEMBLYLANGUAGEPROGRAMIN8085 CALCULATETHESUMOFSERIESOFODDNUMBERS				

CERTIFICATE

This to certify that

Mr./Ms.....with enrollment no.....

has successfully completed his/her laboratory experiments for

COMPUTER ORGANIZATION and MICROPROCESSOR ARCHITECTURE

***(303105211)** from the department of*

COMPUTER SCIENCE AND ENGINEERING

during the academic year 2024-25

Date of Submission:..... Staff In charge:.....

Head of Department:.....

EXPERIMENT NO.1

AIM: TO PERFORM

PARTA: ADDITION OF TWO 8 BIT NUMBERS USING 8085.

ALGORITHM:

PROGRAM:

OBSERVATION:

PART B: WRITE A PROGRAM TO ADD TWO 16-BIT NUMBERS STORED IN REGISTERS OR MEMORY LOCATIONS.

ALGORITHM:

PROGRAM:

OBSERVATION:

PART C: 8 BIT SUBTRACTION

ALGORITHM:

PROGRAM:

OBSERVATION:

CONCLUSION:

EXPERIMENTNO: 2

AIM:
PART A: WRITE AN 8085 ASSEMBLY LANGUAGE TO PERFORM MULTIPLICATION OF TWO 8 BIT NOs..

ALGORITHM:

PROGRAM:

OBSERVATION:

PART B: WRITE AN 8085 ASSEMBLY LANGUAGE TO PERFORM DIVISION OF TWO 8 BIT NOs.

ALGORITHM:

PROGRAM:

OBSERVATION:

CONCLUSION:

EXPERIMENTNO: 3

AIM: WRITE A PROGRAM TO ADD BLOCK OF 8-BIT DATA STORED IN MEMORY LOCATIONS.

ALGORITHM:

PROGRAM:

OBSERVATION:

CONCLUSION:

EXPERIMENTNO:4

PART A: WRITE AN 8085 ASSEMBLY LANGUAGE PROGRAM TO FIND THE MINIMUM FROM TWO 8-BIT NUMBERS.

ALGORITHM:

PROGRAM:

OBSERVATION:

PART B: WRITE AN 8085 ASSEMBLY LANGUAGE PROGRAM TO GET THE MINIMUM FROM BLOCK OF N 8-BIT NUMBERS.

ALGORITHM:

PROGRAM:

OBSERVATION:

CONCLUSION:

EXPERIMENTNO:5

PART A: WRITE AN 8085 ASSEMBLY LANGUAGE PROGRAM TO FIND THE MAXIMUM FROM TWO 8-BIT NUMBERS.

ALGORITHM:

PROGRAM:

OBSERVATION:

PART B: WRITE AN 8085 ASSEMBLY LANGUAGE PROGRAM TO GET THE MAXIMUM FROM BLOCK OF N 8-BIT NUMBERS.

ALGORITHM:

PROGRAM:

OBSERVATION:

CONCLUSION:

EXPERIMENTNO:6

AIM: PART A: WRITE AN ASSEMBLY LANGUAGE PROGRAM TO SORT DATA IN ASCENDING ORDER.

ALGORITHM:

PROGRAM:

OBSERVATION:

PART B: WRITE AN ASSEMBLY LANGUAGE PROGRAM TO SORT DATA IN DECENDING ORDER.

ALGORITHM:

PROGRAM:

OBSERVATION:

CONCLUSION:

EXPERIMENTNO:7

PART A: WRITE AN 8085 ASSEMBLY LANGUAGE PROGRAM TO CONVERT GIVEN BCD NUMBER INTO ITS EQUIVALENT BINARY NUMBER.

ALGORITHM:

PROGRAM:

OBSERVATION:

PART B: WRITE AN 8085 ASSEMBLY LANGUAGE PROGRAM TO CONVERT GIVEN BINARY NUMBER INTO ITS EQUIVALENT BCD NUMBER.

ALGORITHM:

PROGRAM:

OBSERVATION:

CONCLUSION:

EXPERIMENTNO:8

AIM: PART A: WRITE AN 8085 ASSEMBLY LANGUAGE PROGRAM TO CONVERTGIVEN BINARY NUMBER INTO ITS EQUIVALENT ASCII NUMBER.

ALGORITHM:

PROGRAM:

OBSERVATION:

PART B: WRITE AN 8085 ASSEMBLY LANGUAGE PROGRAM TO CONVERT GIVEN ASCII NUMBER INTO ITS EQUIVALENT BINARY NUMBER.

ALGORITHM:

PROGRAM:

OBSERVATION:

CONCLUSION:

EXPERIMENTNO:9

AIM: WRITE AN ASSEMBLY LANGUAGE PROGRAM IN 8085 TO CALCULATE THE SUM OF A SERIES OF EVEN NUMBERS.

ALGORITHM:

PROGRAM:

OBSERVATION:

CONCLUSION:

EXPERIMENTNO:10

AIM: WRITE AN ASSEMBLY LANGUAGE PROGRAM IN 8085 TO CALCULATE THE SUM OF SERIES OF ODD NUMBERS

ALGORITHM:

PROGRAM:

OBSERVATION:

CONCLUSION: