Birla Institute of Technology and Science, Pilani – KK Birla Goa Campus

EEE/ECE/INSTR F241

Lab 3

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1. Write an 8086 ALP to find the largest number in an array of ten 8-bit numbers stored in memory starting from address DS:2000

2. Write an 8086 ALP to store 2 eight-bit numbers at location DS:1000 and DS:1001. Find their product and store the result from location DS:2000

3. Write an 8086 ALP to add the numbers 0x1BC and 0x221 and store the result in memory from address DS:2000

4. Write an 8086 ALP to sort an array of ten 16-bit numbers in ascending order which are stored in memory starting from address DS:2000

5. Write an ALP to check whether a given number is present in an array. The number to be checked is stored in memory address DS:1000 and the array is stored starting from address DS:2000. The size of the array is stored in address DS:1001. If the element is present, store 1 in address DS:1002H else store 0.

6. Write an ALP to implement the modulus operation. The dividend and divisor and 8-bit numbers. Dividend is stored at address DS:1000 and divisor at DS:1001. Store the result of modulus at address DS:2000

Compare the programs written for 8085 and 8086 and comment on the advantages/disadvantages of 8086 compared to 8085.