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Program 2(f)	Find the 1's complement of the number stored at memory location 4400H and store the complemented number at memory location 4300H.	P-3
Program 2(g)	Find the 2's complement of the number stored at memory location 4200H and store the complemented number at memory location 4300H.	P-3



Program No.	Name of the Program	Page Nos.
Packing and unpacking operations.		P-4
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Program 3(b)	Two digit BCD number is stored in memory location 4200H. Unpack the BCD number and store the two digits in memory locations 4300H and 4301H such that memory location 4300H will have lower BCD digit.	P-4
Register Operations.		P-5
Program 4(a)	Write a program to shift an eight bit data four bits right. Assume that data is in register C.	P-5
Program 4(b)	Program to shift a 16-bit data 1 bit left. Assume data is in the HL register pair.	P-5
Program 4(c)	Write a set of instructions to alter the contents of flag register in 8085.	P-5
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Multiple memory locations.		P-6
Program 5(a)	Calculate the sum of series of numbers. The length of the series is in memory location 4200H and the series begins from memory location 4201H. i. Consider the sum to be 8 bit number. So, ignore carries. Store the sum at memory location 4300H. ii. Consider the sum to be 16 bit number. Store the sum at memory locations 4300H and 4301H.	P-6
Program 5(b)	Multiply two 8-bit numbers stored in memory locations 2200H and 2201H by repetitive addition and store the result in memory locations 2300H and 2301H.	P-7
Program 5(c)	Divide 16 bit number stored in memory locations 2200H and 2201H by the 8 bit number stored at memory location 2202H. Store the quotient in memory locations 2300H and 2301H and remainder in memory locations 2302H and 2303H.	P-7
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Program 5(e)	Find the largest number in a block of data. The length of the block is in memory location 2200H and the block itself starts from memory location 2201H. Store the maximum number in memory location 2300H. Assume that the numbers in the block are all 8 bit unsigned binary numbers.	P-8
Calculations with respect to memory locations.		P-9
Program 6(a)	Write a program to sort given 10 numbers from memory location 2200H in the ascending order.	P-9



Program No.	Name of the Program	Page Nos.
Program 6(b)	Calculate the sum of series of even numbers from the list of numbers. The length of the list is in memory location 2200H and the series itself begins from memory location 2201H. Assume the sum to be 8 bit number so you can ignore carries and store the sum at memory location.	P-9
Program 6(c)	Calculate the sum of series of odd numbers from the list of numbers. The length of the list is in memory location 2200H and the series itself begins from memory location 2201H. Assume the sum to be 16-bit. Store the sum at memory locations 2300H and 2301H.	P-10
Program 6(d)	Find the square of the given numbers from memory location 6100H and store the result from memory location 7000H.	P-11
Program 6(e)	Search the given byte in the list of 50 numbers stored in the consecutive memory locations and store the address of memory location in the memory locations 2200H and 2201H. Assume byte is in the C register and starting address of the list is 2000H. If byte is not found store 00 at 2200H and 2201H.	P-11
Program 6(f)	Two decimal numbers six digits each, are stored in BCD package form. Each number occupies a sequence of byte in the memory. The starting address of first number is 6000H Write an assembly language program that adds these two numbers and stores the sum in the same format starting from memory location 6200H.	P-12
Program 6(g)	Add 2 arrays having ten 8-bit numbers each and generate a third array of result. It is necessary to add the first element of array 1 with the first element of array-2 and so on. The starting addresses of array1, array2 and array3 are 2200H, 2300H and 2400H, respectively.	P-13
Assembly Programs on Memory Locations		P-13
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Program 7(d)	A list of 50 numbers is stored in memory, starting at 6000H. Find number of negative, zero and positive numbers from this list and store these results in memory locations 7000H, 7001H, and 7002H respectively.	P-15



Program No.	Name of the Program	Page Nos.
Program 7(e)	Write an assembly language program to generate Fibonacci number.	P-15
Program 7(f)	Program to calculate the factorial of a number between 0 to 8.	P-16
String Operations in Assembly Programs		P-16
Program 8(a)	Write an 8085 assembly language program to insert a string of four characters from the tenth location in the given array of 50 characters.	P-16
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Program 8(c)	Multiply the 8-bit unsigned number in memory location 2200H by the 8-bit unsigned number in memory location 2201H. Store the 8 least significant bits of the result in memory location 2300H and the 8 most significant bits in memory location 2301H.	P-17
Program 8(d)	Divide the 16-bit unsigned number in memory locations 2200H and 2201H (most significant bits in 2201H) by the 8-bit unsigned number in memory location 2300H store the quotient in memory location 2400H and remainder in 2401H.	P-18
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Program 9(c)	Transfer ten bytes of data from one memory to another memory block. Source memory block starts from memory location 2200H where as destination memory block starts from memory location 2300H.	P-21
Program 9(d)	Write a program to find the Square Root of an 8 bit binary number. The binary number is stored in memory location 4200H and store the square root in 4201H.	P-21
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Operations on BCD Numbers		P-22
Program 10(a)	Add two 4 digit BCD numbers in HL and DE register pairs and store result in memory locations, 2300H and 2301H. Ignore carry after 16 bit.	P-22
Program 10(b)	Subtract the BCD number stored in E register from the number stored in the D register.	P-23
Program 10(c)	Write an assembly language program to multiply 2 BCD numbers.	P-23

