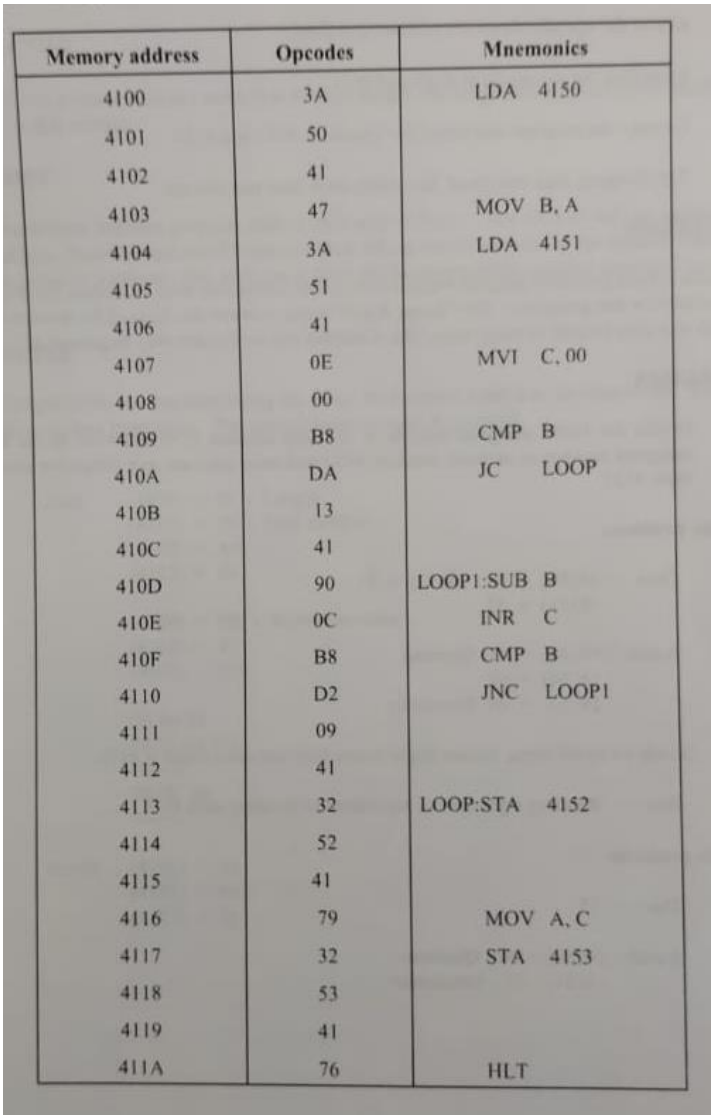
Q. No.	Analytical Questions	Processor
1	Registers A, H, L, C, and B are used for general purpose. Load the HL pair register with the address 8000 of memory location. The 8085 has **No division operation**. To get the result of division, use a suitable method to get the quotient and the remainder. 8020H will hold the quotient, and 8021H will hold remainder. Finally save the data at location 8000H and 8001H. The result is storing at location 8050H and 8051H.	8085



Memory address	Opcodes	Mnemonics
4100	3A	LDA 4150
4101	50	
4102	41	
4103	47	MOV B, A
4104	3A	LDA 4151
4105	51	
4106	41	
4107	0E	MVI C, 00
4108	00	
4109	B8	CMP B
410A	DA	JC LOOP
410B	13	
410C	41	
410D	90	LOOP1:SUB B
410E	0C	INR C
410F	B8	CMP B
4110	D2	JNC LOOP1
4111	09	
4112	41	
4113	32	LOOP:STA 4152
4114	52	
4115	41	
4116	79	MOV A, C
4117	32	STA 4153
4118	53	
4119	41	
411A	76	HLT

2	Write an assembly language program to add two 8-bit numbers stored at address 2050 and address 2051 in 8085 Microprocessor. The starting address of the program is taken as 2000.	8085

Hex address from where program is to be entered	Object codes	Mnemonics
4100	3E	MVI A,23
4101	23	
4102	06	
4103	22	MVI B,22
4104	80	
4105	32	ADD B
4106	00	STA 4200
4107	42	
4108	76	
		HLT

3	Write a program to subtract two 8-bit numbers with or without borrow where first number is at 2500 memory address and second number is at 2501 memory address and store the result into 2502 and borrow into 2503 memory address.	8085

Memory address	Opcodes	Mnemonics
4100	21	LXI H, 4150
4101	50	
4102	41	
4103	7E	MOV A, M
4104	23	INX H
4105	96	SUB M
4106	23	INX H
4107	77	MOV M, A
4108	76	HLT

4	Write an assembly language program multiply two 8-bit numbers stored at address 2050 and 2051. Result is stored at address 3050 and 3051. Starting address of program is taken as 2000.	8085

Memory address	Opcodes	Mnemonics
4100	3A	LDA 4152
4101	52	
4102	41	
4103	47	MOV B, A
4104	11	LXI D, 0000
4105	00	
4106	00	
4107	2A	LHLD 4150
4108	50	
4109	41	
410A	EB	XCHG
410B	19	LOOP: DAD D
410C	05	DCR B
410D	C2	JNZ LOOP
410E	0B	
410F	41	
4110	22	SHLD 4154
4111	54	
4112	41	
4113	76	HLT

<table>
<tr>
<td>6</td>
<td>Write an assembly language program to add 23H and 22H using immediate date addressing of 8085 Microprocessor. The starting address of the program is taken as 4100.
<table>
<tr><th>Hex address from where program is to be entered</th><th>Object codes</th><th>Mnemonics</th></tr>
<tr><td>4100</td><td>3E</td><td>MVI A,23</td></tr>
<tr><td>4101</td><td>23</td><td></td></tr>
<tr><td>4102</td><td>06</td><td></td></tr>
<tr><td>4103</td><td>22</td><td>MVI B,22</td></tr>
<tr><td>4104</td><td>80</td><td></td></tr>
<tr><td>4105</td><td>32</td><td>ADD B</td></tr>
<tr><td>4106</td><td>00</td><td>STA 4200</td></tr>
<tr><td>4107</td><td>42</td><td></td></tr>
<tr><td>4108</td><td>76</td><td></td></tr>
<tr><td></td><td></td><td>HLT</td></tr>
</table>
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<td>8085</td>
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<tr>
<td>7</td>
<td>Write an assembly language program to subtract 33H and 30H using immediate date addressing of 8085 Microprocessor. The starting address of the program is taken as 4100.</td>
<td>8085</td>
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