

CMPE109 FUNDAMENTALS OF COMPUTING

2024-2025 FALL

LAB ASSIGNMENT 3

SECTION 1

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Full Name:

Student ID:

Signature:

Q1) Trace the following assembly code. After we run the code, whether it halts or gives an error (doesn't matter), what will be the hexadecimal values stored in the following addresses, including IR. **[5 points]**

Note: IR shows the last executed code. For example, it shows 2005 for the code in line 1.

Note: Every hexadecimal value you write must be at least 2 characters. For example, write 0A for decimal 10.

Machine Instruction			Assembly Instruction	Operation
Op-code	Operand			
1	RXY	load R, [XY]		Load R with the content from the memory cell at address XY
2	RXY	load R, XY		Load R with the bit pattern XY
3	RXY	store R, [XY]		Store the content of R into the memory cell at address XY
4	0RS	move S, R		Move content of R into S
5	RST	addi R, S, T		Add S and T and put the result in R (R, S, and T are in two's complement integer notation)
6	RST	addf R, S, T		Add S and T and put the result in R (R, S, and T are in floating-point notation)
7	RST	or R, S, T		OR the bit patterns in S and T and put the result in R
8	RST	and R, S, T		AND the bit patterns in S and T and put the result in R
9	RST	xor R, S, T		XOR the bit patterns in S and T and put the result in R
A	R0X	ror R, X		Circularly rotate the bit pattern in R one bit to the right X times
B	RXY	jmpEQ R=R0, XY		Start decoding the instruction located at address XY if the bit pattern in R is equal to the bit pattern in register 0
C	000	halt		Halt execution
D	0RS	load R, [S]		Load R with the content from the memory cell whose address is in S
E	0RS	store R, [S]		Store the content of R into the memory cell whose address is in S
F	RXY	jmpLE R<=R0, XY		Start decoding the instruction located at address XY if the bit pattern in R is less than or equal to the bit pattern in register 0

1		LOAD R0, 5
2		LOAD R1, 0
3		LOAD R2, 1
4		LOAD R3, LIST
5		
6	BACK:	LOAD R4, [R3]
7		JMPEQ R4=R0, END
8		JMPLE R4<=R0, INC
9		
10		ADDI R1, R1, R4
11		STORE R1, [\$FD]
12	INC:	ADDI R3, R3, R2
13		STORE R4, [\$FE]
14		JMP BACK
15		
16	END:	STORE R1, [\$FF]
17		HALT
18		
19	LIST:	DB 2,4,-5,3,5,-4,7,-2,5,9,0

FE	
R4	
IR	

Q2) Above assembly code can run without giving an error, or maybe it is wrong and can give an error at some point, you must understand that. Do you think this assembly code will run and halt without an error (write yes or no)? If you said no, why (write just 1 sentence)? **[2 points]**

Q3) Recreate the given webpage visually using HTML. Your code should include a table with four columns. Ensure your code is correctly structured with proper HTML tags and formatting. [7 points]

```
<!DOCTYPE html>
<html>
<head>

</head>
<body

</body>
</html>
```



Movie List YEY

Title UwU	Director OwO	Year :3	Genre x3
Inception	Christopher Nolan	2010	Science Fiction
The Godfather	Francis Ford Coppola	1972	Drama
Parasite	Bong Joon-ho	2019	Thriller

- Page title is "My Cute Films".
- Page background is covered with an image. This image's name is "backA.png".
- Image is placed before the heading, its name is "mveA.png", width is "300", height is "300".
- Use "h1" for the heading. Also, it is *italic* and aligned to "center".
- Table border size is "3". Also, it is aligned to "center".
- First row items in the table are **bold**.

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