Select the correct answers from the choices below to convert the following C-language statement to RISC-V assembly. Assume that the data types of array "A" and array "B" are long long int. Also, assume that the starting address of array "A" is 0 and the starting address of array "B" is mapped to "x20".

B[6] = -3 - A[4];

RISC-V Assembly Code:

addi x6, x0 , -3

Ld x7, 32(x0)

sub x6, x6, x7

sd x6, 48(x20)

Given the information of $CPU_A$ and $CPU_B$ when executing $Program_X$ in the tables below, answer the following questions:

| $CPU_A$ Information | | | | |
|---|---|---|---|---|
| Instruction Type | A | B | C | D |
| $IC_i$ | 3 | 2 | 4 | 1 |
| $CPI_i$ | 3 | 3 | 1 | 3 |



| $CPU_B$ Information | | | |
|---|---|---|---|
| Instruction Type | X | Y | Z |
| Relative Frequency | 20% | 30% | 50% |
| $CPI_i$ | 1 | 2 | 4 |

What is the number of CPU clock cycles for $Program_X$ on $CPU_A$?

- ○ 10

What is the number of CPU clock cycles for $Program_X$ on **$CPU_A$**?

- ○ 10
- ○ 7
- ○ 20
- ○ 25
- ◉ 22

Given that clock rate of $CPU_B$ is 2 GHz and the total instruction count of $Program_X$ on $CPU_B$ is 300, what is clock rate of $CPU_A$ that will make $CPU_A$ 21 times faster than $CPU_B$ when executing $Program_X$?

- ○ 30 GHz
- ○ 1.27 GHz
- ◉ 1.1 GHz
- ○ No sufficient information
- ○ 4.2 GHz