

Q1. Implement the following C code for RISC-V assembly. Assume that the values of a, b, i, j are in registers X5, X6, X7 and X29 respectively. Also, assume that register X10 holds the base address of the array A.

```
for ( i = 0 ; i < a ; i++)
    for ( j = 0 ; j < b ; j++)
        A[i] = A[i] + 2*j + i;
```

```
.data
A: .byte 2,0,3,1
.text
li x5, 4
li x6, 2
la x10, A
```

| | | | | |
|------------|---|---|---|---|
| 0x10000000 | 4 | 4 | 9 | 9 |
|------------|---|---|---|---|