

CSE 305 – Computer Architecture
Class Test - 4 (Total Marks: 20)

Student No:

1. Consider the following C code

$A = B + C; D = A + E;$

All of the above are memory instructions. The base address is in register t0 and the offsets are A (0), B (4), C (8), D (12), E (16). How many cycles are required to execute the above? Can you reduce the number of cycles using code scheduling? If yes, what will be resulting number of cycles? Show each step. (15)

2. What do you mean by double data hazard? Write down the equations to detect forwarding considering double data hazard? (5)