

CA Lab – Q – Batch – 23.05.2023

1. Draw the single cycle datapath with control for sw \$t4, 40(\$s0)
2. Show the pipeline timing diagram for the execution of the following instruction sequence, considering the hazards and the possible solutions.

40 lw \$4, 50(\$7)

44 and \$12, \$4, \$5

48 or \$13, \$12, \$2

52 add \$14, \$2, \$2

72 sw \$14, 50(\$7)

3. Draw the pipelined datapath for handling load-use hazard.