

COMPUTER ORGANIZATION & ARCHITECTURE**ASSIGNMENT –I**

1. Given $R=10$, $PC=20$, and index register $X=30$ show the value of the accumulator for the following instructions. All memory locations Q contain the value $Q+1$. Each instruction uses two memory locations.
 - a) LDAC 10
 - b) LDAC @10
 - c) LDAC R
 - d) LDAC (R)
 - e) LDAC #10
 - f) LDAC \$10
 - g) LDAC 10(X)

2. Show the code to perform the computation $X=A+(B*C)+D$ using microprocessors that uses the following instruction formats. Do not modify the values of A, B, C, D. If necessary use temporary location T to store intermediate results
 - a) Three address instruction
 - b) Two address instruction
 - c) One address instruction
 - d) Zero address instruction

3. Show the code to perform the computation $X=A*B*C+D*(E+F)$ using microprocessors that uses the following instruction formats. Do not modify the values of A, B, C, D, E, F. If necessary use temporary location T to store intermediate results
 - a) Three address instruction
 - b) Two address instruction
 - c) One address instruction
 - d) Zero address instruction

4. Show the internal linear configuration of a 32 X 2 memory chip

5. Show the internal two-dimensional configuration of a 32 X 2 memory chip

6. Describe a simple computer architecture