Lab 17 – Using Logic & Shift Instructions

Objectives

The objective of this lab is to implement different programs related to logic and shift

Instructions.

Lab Tasks

Task 1: Write a program to reverse bit pattern of the contents of AL register.

Task 2: Use ROL to count the number of 1 bits in BX, without changing BX. Put answer in

AX.

Task 3: Use ROL to count the number of 0 bits in BX, without changing BX. Put answer in

DX.

Task 4: Write a single instruction that clears the high 8 bits of AX and does not change the

low 8 bits.

Task 5: Write a single instruction that sets the high 8 bits of AX and does not change the low

8 bits.