**Problem –** Write an assembly language program in 8086 microprocessor to find square root of a number.

**Program –**

| **OFFSET** | **MNEMONICS** | **COMMENT** |
| --- | --- | --- |
| 0400 | MOV AX, [500] | AX <- [500] |
| 0404 | MOV CX, 0000 | CX <- 0000 |
| 0407 | MOV BX, FFFF | BX <- FFFF |
| 040A | ADD BX, 02 | BX = BX + 02 |
| 040E | INC CX | C = C + 1 |
| 040F | SUB AX, BX | AX = AX – BX |
| 0411 | JNZ 040A | JUMP to 040A if ZF = 0 |
| 0413 | MOV [600], CX | [600] <- CX |
| 0417 | HLT | Stop |