13. Program to count number of ones in a 16 bit number

DATA SEGMENT

A1 DW 0FFAFH

A2 DB 00h

DATA ENDS

CODE SEGMENT

ASSUME CS:CODE,DS:DATA

START: MOV AX,DATA

 MOV DS,AX

 MOV DL,00H

 MOV AX,A1

 MOV CX,0010H

 AGAIN:ROR AX,01H

 JNC NEXT

 INC DL

 NEXT: LOOP AGAIN

 MOV A2,DL

 INT 3

CODE ENDS

 END START

14. Check whether a number is odd or even( This program shows 00 if number is even , otherwise shows 01)

DATA SEGMENT

A1 DW 0FFAEH

A2 DB 00h

DATA ENDS

CODE SEGMENT

ASSUME CS:CODE,DS:DATA

START: MOV AX,DATA

 MOV DS,AX

 MOV DL,00H

 MOV AX,A1

 ROR AX,01H

 JNC NEXT

 INC DL

 NEXT:MOV A2,DL

 INT 3

CODE ENDS

 END START

15. Check whether a number is divisible by another number. ( This program shows 00 if number is divisible , otherwise shows 01)

DATA SEGMENT

A1 DW 00E8H

A2 DB 74h

A3 DB 00H

DATA ENDS

CODE SEGMENT

ASSUME CS:CODE,DS:DATA

START: MOV AX,DATA

 MOV DS,AX

 MOV DL,00H

 MOV AX,A1

 MOV BL,A2

 DIV BL

 CMP AH,00H

 JNZ NEXT

 INC DL

 NEXT:MOV A3,DL

 INT 3

CODE ENDS

 END START