

QUESTION 1 Get an integer from user and display whether the number is Even or Odd.

```
S.model small
.stack 100h
.data
ev db 'Even$'
od db 'Odd$'
.code
main proc
mov ax,@data
mov ds,ax
mov ah,1
int 21h
mov bl,2
div bl
cmp ah,0
je IsEven
mov dx,10
mov ah,2
int 21h
mov dx,13
mov ah,2
int 21h
mov dx,offset od
IsEven:
mov dx,10
mov ah,2
int 21h
mov dx,offset ev
mov ah,9
int 21h
mov ah,4ch
int 21h
main endp
end main
```

```
Microsoft (R) Macro Assembler Version 5.00
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51670 + 464874 Bytes symbol space free

0 Warning Errors
0 Severe Errors

C:\>link lab91.obj;

Microsoft (R) Overlay Linker Version 3.60
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C:\>lab91.exe
8
Even
C:\>
```

## 2. Practice codes of :

### A). DIVISION

```
DOS FOR DOS DOSBox 0.74, Cpu speed: 3000 cy
File Edit Search View
dosseg
.model small
.stack 100h
.data
q db ?
r db ?
.code
main proc
mov ax,@data
mov ds,ax
mov ax,27
mov bl,5
div bl
mov q,al
mov r,ah
mov dl,q
add dl,48
mov ah,2
int 21h
mov dl,r
add dl,48
mov ah,2
int 21h
mov ah,4ch
int 21h
main endp
end main
Commands for manipulating
```

```
C:\>masm lab92.asm:
Microsoft (R) Macro Assembler Version 5.00
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51708 + 464836 Bytes symbol space free

0 Warning Errors
0 Severe Errors

C:\>link lab92.obj:

Microsoft (R) Overlay Linker Version 3.60
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C:\>lab92.exe
52
C:\>TD.EXE_
```

## B) AND gate

DOSBox 0.74, Cpu speed: 3000 cycles

File Edit Search View

```
dosseg
.model small
.stack 100h
.data
.code
main proc
mov bl,1101b
and bl,110b
add bl,48
mov dl,bl
mov ah,2
int 21h
mov ah,4ch
int 21h
main endp
end main
```

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51720 + 464824 Bytes symbol space free

0 Warning Errors

0 Severe Errors

C:\>link and.obj;

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C:\>and.exe

4

C:\>

### C) OR gate.

```
DOSBOX 0.74, Cpu speed: 3000 cycles
File Edit Search View
dosseg
.model small
.stack 100h
.data
.code
main proc
mov bl,101b
or bl,110b
add bl,48
mov dl,bl
mov ah,2
int 21h
mov ah,4ch
int 21h
main endp
end main
```

```
DOSBOX 0.74, Cpu speed: 3000 cycles, Frameskip 0, Program: DOSBOX

C:\>and.exe
4
C:\>edit or.asm

C:\>masm or.asm;
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51720 + 464824 Bytes symbol space free

0 Warning Errors
0 Severe Errors

C:\>link or.obj;

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C:\>or.exe
7
C:\>AND.EXE
```

#### D) XOR gates.

```
DOS BOX DOSBox 0.74, Cpu speed: 3000 cyc
File Edit Search View
dosseg
.model small
.stack 100h
.data
.code
main proc
mov bl,101b
xor bl,110b
add bl,48
mov dl,bl
mov ah,2
int 21h
mov ah,4ch
int 21h
main endp
end main
```

```
C:\>masm xor.asm;
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51720 + 464824 Bytes symbol space free

0 Warning Errors
0 Severe Errors

C:\>link xor.obj;

Microsoft (R) Overlay Linker Version 3.60
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C:\>xor.exe
3
C:\>_
```