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**SUBJECT: COAL**

### **LAB6-TASK1:**

```
dosseg
.model small
.stack 100h
.data
.code
main proc
mov cx,10
mov dx,48
l1:
mov ah,2
int 21h
add dx,1
loop l1
mov ah,4ch
int 21h
main endp
end main
```

Commands for manipulating files

```
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```

```
Object filename [L6_T1_65731.OBJ]:
```

```
Source listing [NUL.LST]:
```

```
Cross-reference [NUL.CRF]:
```

```
51680 + 464864 Bytes symbol space free
```

```
0 Warning Errors
```

```
0 Severe Errors
```

```
C:\>edit L6_T1_65731.asm
```

```
C:\>link L6_T1_65731.obj
```

```
Microsoft (R) Overlay Linker Version 3.60
```

```
Copyright (C) Microsoft Corp 1983-1987. All rights reserved.
```

```
Run File [L6_T1_65731.EXE]:
```

```
List File [NUL.MAP]:
```

```
Libraries [.LIB]:
```

```
C:\>L6_T1_65731.exe
```

```
0123456789
```

```
C:\>
```

## LAB6-TASK2:

The screenshot shows a Microsoft Macro Assembler (MASM) window. The assembly code in the main pane is as follows:

```
dosseg
.model small
.stack 100h
.data
.code
main proc
    mov cx,10
    mov dx,57
    11:
    mov ah,2
    int 21h
    sub dx,1
    loop 11
    mov ah,4ch
    int 21h
main endp
end main
```

Below the code, the status bar displays "Commands for manipulating files". The bottom pane contains linker output:

```
Copyright (C) Microsoft Corp 1981-1985, 1987. All rights reserved.

Object filename [L6_T2_65731.OBJ]:
Source listing [NUL.LST]:
Cross-reference [NUL.CRF]:

51680 + 464864 Bytes symbol space free

0 Warning Errors
0 Severe Errors

C:\>edit L6_T2_65731.asm

C:\>link L6_T2_65731.obj

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Run File [L6_T2_65731.EXE]:
List File [NUL.MAP]:
Libraries [.LIB]:
```

At the very bottom, the command prompt shows:

```
C:\>L6_T2_65731.exe
9876543210
C:\>_
```

## LAB6-TASK3:

```
File Edit Search View Options Help
C:\L6_T3_65.ASM

dosseg
.model small
.stack 100h
.data
.code
main proc
mov cx,26
mov dx,65
l1:
mov ah,2
int 21h
add dx,1
loop l1
mov ah,4ch
int 21h
main endp
end main

Commands for manipulating files
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Object filename [L6_T3_65731.OBJ]:
Source listing [NUL.LST]:
Cross-reference [NUL.CRF]:

51680 + 464864 Bytes symbol space free

0 Warning Errors
0 Severe Errors

C:\>link L6_T3_65731.obj

Microsoft (R) Overlay Linker Version 3.60
Copyright (C) Microsoft Corp 1983-1987. All rights reserved.

Run File [L6_T3_65731.EXE]:
List File [NUL.MAP]:
Libraries [.LIB]:

C:\>L6_T3_65731.exe
ABCDEFGHIJKLMNOPQRSTUVWXYZ
C:\>edit L6_T3_65731.asm

C:\>
```

## LAB6-TASK4:

```
File Edit Search View Options Help C:\L6_T4_65.ASM
dosseg
.model small
.stack 100h
.data
.code
main proc
mov cx,26
mov dx,97
l1:
mov ah,2
int 21h
add dx,1
loop l1
mov ah,4ch
int 21h
main endp
end main

Commands for manipulating files
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Object filename [L6_T4_65731.OBJ]:
Source listing [NUL.LST]:
Cross-reference [NUL.CRF]:

51680 + 464864 Bytes symbol space free

0 Warning Errors
0 Severe Errors

C:\>link L6_T4_65731.obj

Microsoft (R) Overlay Linker Version 3.60
Copyright (C) Microsoft Corp 1983-1987. All rights reserved.

Run File [L6_T4_65731.EXE]:
List File [NUL.MAP]:
Libraries [.LIB]:

C:\>L6_T4_65731.exe
abcdefghijklmnopqrstuvwxyz
C:\>edit L6_T4_65731.asm

C:\>
```

## LAB6-TASK5:

```
File Edit Search View Options Help
C:\NL6_T5_65.ASM

dosseg
.model small
.stack 100h
.data
.code
main proc
mov cx,26
mov dx,65
l1:
mov ah,2
int 21h
add dx,1
loop l1

mov dx,10
mov ah,2
int 21h
mov dx,13
mov ah,2
int 21h

mov cx,26
Commands for manipulating files
```

```
mov cx,26
mov dx,97
l2:
mov ah,2
int 21h
add dx,1
loop l2
mov ah,4ch
int 21h
mov ah,4ch
int 21h

main endp
end main
Commands for manipulating files
```

```
Object filename [L6_T5_65731.OBJ]:  
Source listing [NUL.LST]:  
Cross-reference [NUL.CRF]:  
  
51680 + 464864 Bytes symbol space free  
  
0 Warning Errors  
0 Severe Errors  
  
C:\>link L6_T5_65731.obj  
  
Microsoft (R) Overlay Linker Version 3.60  
Copyright (C) Microsoft Corp 1983-1987. All rights reserved.  
  
Run File [L6_T5_65731.EXE]:  
List File [NUL.MAP]:  
Libraries [.LIB]:  
  
C:\>L6_T5_65731.exe  
ABCDEFGHIJKLMNOPQRSTUVWXYZ  
abcdefghijklmnopqrstuvwxyz  
C:\>edit L6_T5_65731.asm  
  
C:\>
```

## LAB6-TASK6:

The screenshot shows a DOS-based text editor window with the title bar "C:\L6\_T6\_65.ASM". The menu bar includes FILE, EDIT, SEARCH, VIEW, OPTIONS, and HELP. The status bar at the bottom right shows "Line:1 Col:1". The code in the editor is as follows:

```
dosseg
.model small
.stack 100h
.data
.code
main proc
mov cx,26
mov dx,65
l1:
mov ah,2
int 21h
add dx,1
loop l1
mov dx,10
mov ah,2
int 21h
mov dx,13
mov ah,2
int 21h

mov cx,26
mov dx,97
```

The screenshot shows a DOS-based text editor window with the title bar "C:\L6\_T6\_65.ASM". The menu bar includes FILE, EDIT, SEARCH, VIEW, OPTIONS, and HELP. The status bar at the bottom right shows "Line:1 Col:1". The code in the editor is as follows:

```
l2:
mov ah,2
int 21h
add dx,1
loop l2
mov ah,4ch

mov dx,10
mov ah,2
int 21h
mov dx,13
mov ah,2
int 21h

mov cx,10
mov dx,48
l3:
mov ah,2
int 21h
add dx,1
loop l3
mov dx,10
```

At the bottom of the window, there is a status message: "Commands for manipulating files".

```
File Edit Search View Options Help C:\L6_T6_65.ASM
loop 13
mov dx,10
mov ah,2
int 21h
mov dx,13
mov ah,2
int 21h

mov cx,10
mov dx,57
14:
mov ah,2
int 21h
sub dx,1
loop 14
mov ah,4ch
int 21h
mov ah,4ch
int 21h
main endp
end main

Commands for manipulating files
Source listing [NUL.LST]:
Cross-reference [NUL.CRF]:
51680 + 464864 Bytes symbol space free
0 Warning Errors
0 Severe Errors

C:\>link L6_T6_65731.obj

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Run File [L6_T6_65731.EXE]:
List File [NUL.MAP]:
Libraries [.LIB]:
C:\>L6_T6_65731.exe
ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
0123456789
9876543210
C:\>edit L6_T6_65731.asm

C:\>
```

## LAB6-TASK7:

The screenshot shows two windows of Microsoft Notepad. The top window is titled 'C:\L6\_T7\_65.ASM' and contains the following assembly code:

```
dosseg
.model small
.stack 100h
.data
msg1 db 'We find even and odd number$'
msg2 db 'Number=$'
msg3 db 'Even=$'
msg4 db 'Odd=$'
.code
main proc
mov ax,@data
mov ds,ax
mov dx,offset msg1
mov ah,9
int 21h

mov dx,10
mov ah,2
int 21h
mov dx,13
mov ah,2
int 21h
Commands for manipulating files
```

The bottom window is also titled 'C:\L6\_T7\_65.ASM' and contains the following assembly code:

```
mov dx,13
mov ah,2
int 21h
mov dx,offset msg2
mov ah,9
int 21h
mov cx,10
mov dx,48
l1:
    mov ah,2
    int 21h
    add dx,1
loop l1

mov dx,10
mov ah,2
int 21h
mov dx,13
mov ah,2
int 21h

mov dx,offset msg3
Commands for manipulating files
```

File Edit Search View Options Help C:\L6\_T7\_65.ASM

```
mov ah,9  
int 21h  
  
mov cx,5  
mov dx,48  
l2:  
mov ah,2  
int 21h  
add dx,2  
loop l2  
mov ah,4ch  
  
mov dx,10  
mov ah,2  
int 21h  
mov dx,13  
mov ah,2  
int 21h  
  
mov dx,offset msg4  
mov ah,9  
int 21h
```

Commands for manipulating files

```
mov cx,5  
mov dx,49  
l3:  
mov ah,2  
int 21h  
add dx,2  
loop l3  
mov ah,4ch  
int 21h  
main endp  
end main
```

Commands for manipulating files

Source Listing [NUL.LST]:  
Cross-reference [NUL.CRF]:

51640 + 464904 Bytes symbol space free

0 Warning Errors  
0 Severe Errors

C:\>link L6\_T7\_65731.obj

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Run File [L6\_T7\_65731.EXE]:

List File [NUL.MAP]:

Libraries [.LIB]:

C:\>L6\_T7\_65731.exe  
We find even and odd number  
Number=0123456789  
Even=02468  
Odd=13579  
C:\>edit L6\_T7\_65731.asm

C:\>\_