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Roll No:
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Section:
CS-4B

Code :

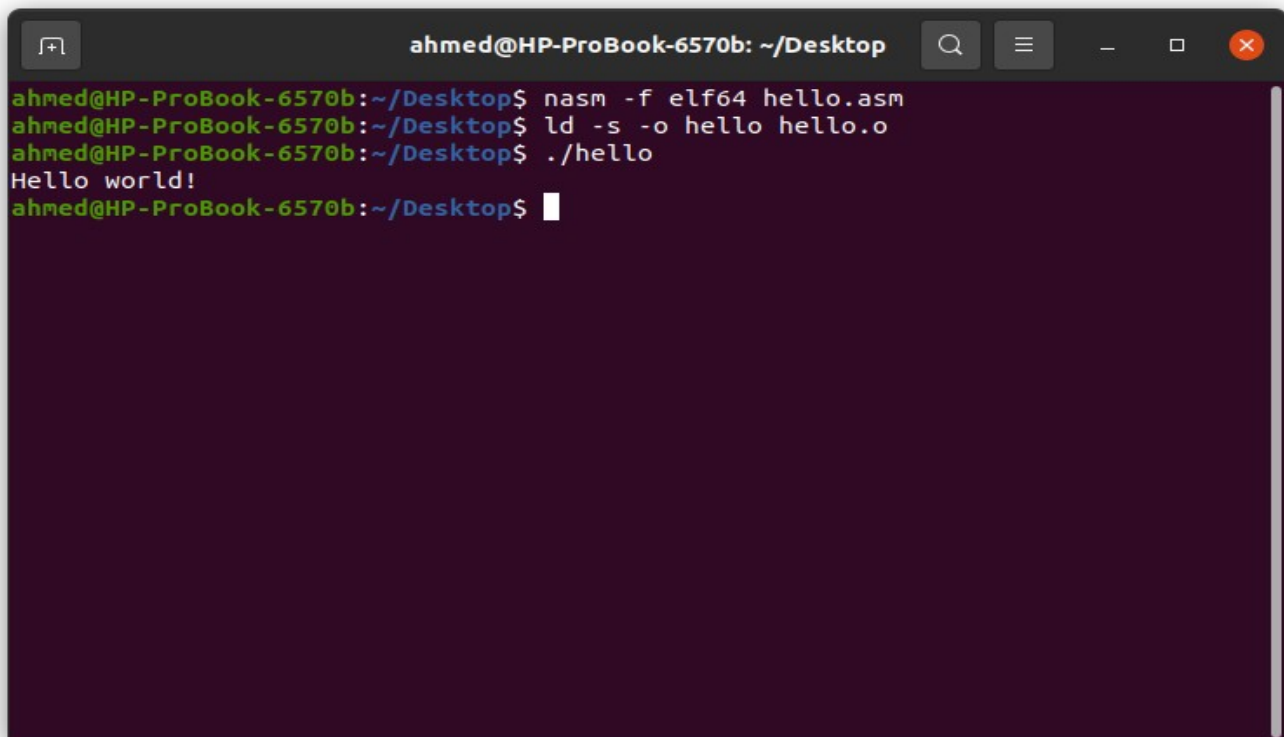
```
section .data
    hello: db 'Hello world!',10 ; 'Hello world!' plus a linefeed character
    helloLen: equ $-hello ; Length of the 'Hello world!' string
```

```
section .text
global _start
```

```
_start:
    mov eax,4 ; The system call for write (sys_write)
    mov ebx,1 ; File descriptor 1 - standard output
    mov ecx,hello ; Put the offset of hello in ecx
    mov edx,helloLen ; helloLen is a constant
    int 80h ; ??

    mov eax,1
    mov ebx,0
    int 80h
```

Screenshots:



A terminal window titled 'ahmed@HP-ProBook-6570b: ~/Desktop' with standard window controls. The terminal shows the following commands and output:

```
ahmed@HP-ProBook-6570b:~/Desktop$ nasm -f elf64 hello.asm
ahmed@HP-ProBook-6570b:~/Desktop$ ld -s -o hello hello.o
ahmed@HP-ProBook-6570b:~/Desktop$ ./hello
Hello world!
ahmed@HP-ProBook-6570b:~/Desktop$
```

5) Answer :

int 80h is the assembly language op code for interrupt 80h. This is the syscall interrupt on a typical Intel-based Unix system, such as FreeBSD. It allows application programmers to obtain system services from the Unix kernel.