

SECTION IV

Question 12 (5 marks). Write a C program that asks the user for 3 integers, reads the values, and then prints out the largest number of the three.

```
#include <stdio.h>
```

```
int
```

```
main(void)
```

```
{
```

```
int n1, n2, n3;
```

```
printf("Enter three numbers\n");  
scanf("%d%d%d", &n1, &n2, &n3);
```

```
if ((n1 >= n2 && n2 >= n3) || (n1 >= n3 && n3 >= n1))
```

```
printf("The largest number is %d\n", n1);
```

```
else
```

```
if ((n2 >= n3 && n3 >= n1) || (n2 >= n1 && n1 >= n3))
```

```
printf("The largest number is %d", n2);
```

```
else
```

```
printf("The largest number is %d", n3);
```

```
return 0;
```

```
}
```

SECTION V

Question 13 (5 marks).

Write a program which does the following:

1. Asks the user to enter an integer.
2. Reads an integer
3. Prints "Leap year" if the integer represents a leap year, and otherwise prints "Not a leap year".

A number is a leap year if it is positive and evenly divisible by 4 but not evenly divisible by 100, with the exception that that numbers divisible by 400 are leap years. For example, the following are leap years: 4, 8, 400, 1600, 1604, 2000, 2012 and the following are not leap years: -4, 100, 500, 1900, 2011, 2100.

#include <stdio.h>

int

main(void)

{

int year;

printf("Enter an integer number\n");

scanf("%d", &year);

if ((year % 400) == 0)

printf("leap year\n");

else

if ((year >= 0) && ((year % 4) == 0) && ((year % 100) != 0))

printf("leap year\n");

else

printf("Not a leap year\n");

return(0);