Name, Surname :
Number   :
Course Code   :
Course Name   : Computer Programming I

Exam   :   ○ Quiz   ● Midterm   ○ Final
Date   :22.11.2013

Please make sure to write your name and student number on each paper that you have used

Question Number	1	2	3	4	5	Total
Mark						

Note: Exam duration is 60 minutes only.

Questions

1-(30p) Given the following C program:What is the output from an execution of this C program?

```c
#include <stdio.h>
int main(void){
int i, j, n = 6;
char a = ' ';  /* for space*/
for (i = 1; i <= n; i++)
{
printf("*");
if (i == n)
{
a = '*';
 }
for (j = 2; j < i; j++)
{
printf("%c", a);
}
if (i != 1)
{
printf("*");
}
printf("\n");
}
return 0;
}
```

2-(10p)(Diameter, Circumference and Area of a Cirle) Write a program that reads the radius of a circle (as a float value) and computes and prints the diameter, the circumference and the area. Use the value 3.14159 for .

3-(20p) Write a program that evaluates the factorials of the integers from keyboard

4-(20p) Write a program that Calculate the value of from the infinite series

$$\pi = 4 - \frac{4}{3} + \frac{4}{5} - \frac{4}{7} + \frac{4}{9} - \frac{4}{11} + \cdots$$

Print a table that shows the value of approximated by one term of this series, by two terms, by three terms, and so on.
Output:
Accuracy set at: 40
term   pi
1   4.000000
2   2.666667
3   3.466667
4   2.895238
5   3.339683
6   2.976046
7   3.283738
8   3.017072
...
...
...
40   3.116597

5-(30p) *(Hollow Square of Asterisks)* Write a program that reads in the side of a square and then prints that square out of asterisks. Your program should work for squares of all side sizes between 1 and 20.so that itprints a hollow square. For example, if your program reads a size of 5, it should print
```
*****
*   *
*   *
*   *
*****
```

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