**Question 3: C++ Basic Programming**

Complete the attached **C++** program **Q3.cpp** as follows:

1. Write the body of the function

void print\_real( float number, int fieldspace, int precision)

to print the value of number in a fixed point-notation, in an output field of fieldspace positions where the number of decimal digits is precision, followed by a new line.

**[1 mark]**

1. Add a C++**template function** void update\_scale having **two C++ reference variable** parameters *m1* and *m2* and a **C++ default parameter** m3 of value 10. All the parameters are of the same data type name **T. In the body of the function, you should update,**

* m1 with the sum of the **original values** of the function parameters m1 and m2, then multiply it by m3.
* m2 with the difference of the original values of m1 and m2, then multiply it by m3.

1. Execute the program. If the values of the variables *a* and *b* in the main() function have changed, explain why.