MILITARY INSTITUTE OF SCIENCE AND TECHNOLOGY
Department of Computer Science and Engineering (CSE)
CSE 206: Object-Oriented Programming Language Sessional I,
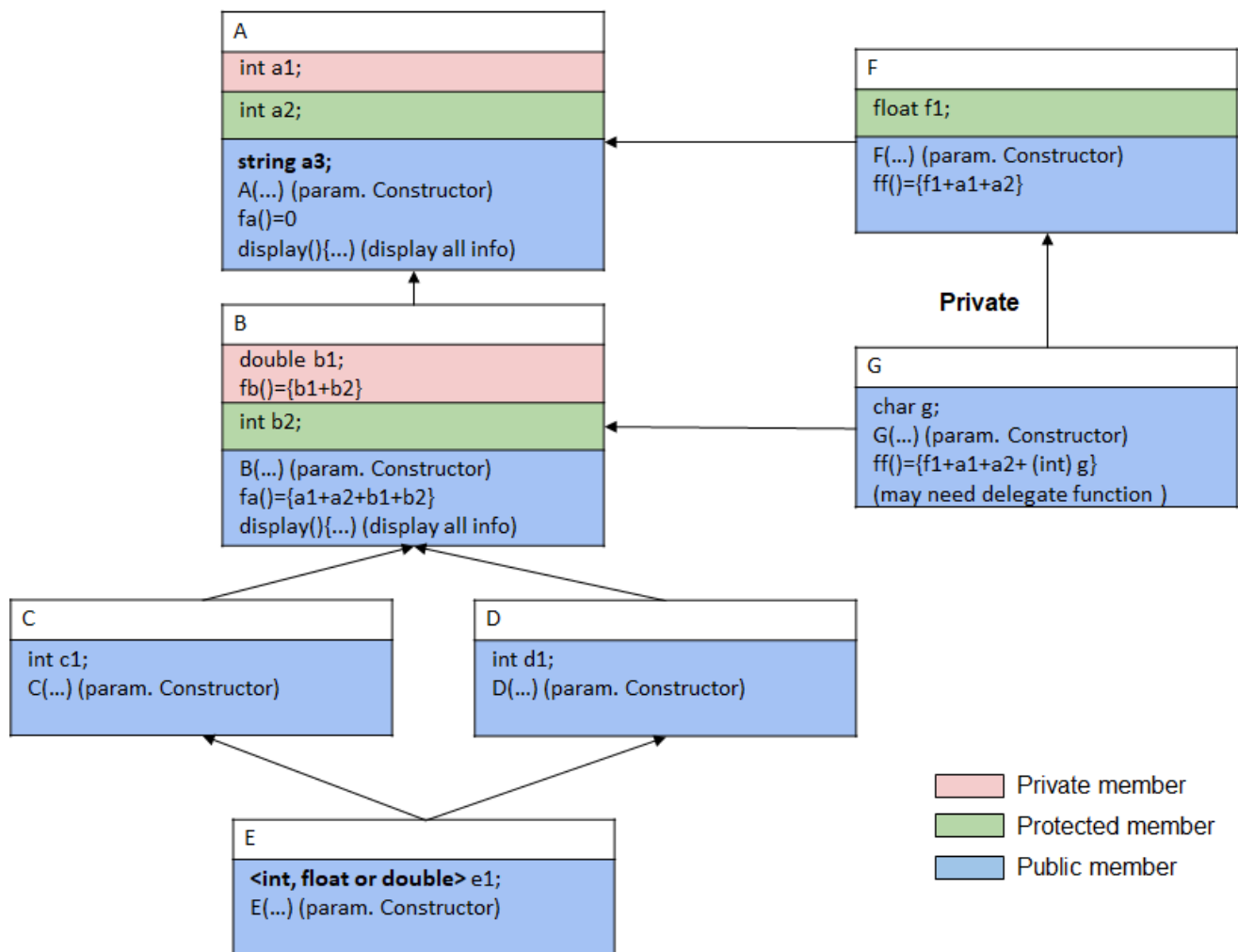Mock Online 2, 14 Jun 2023

Name: ID:

Time: 45 min   **Full marks: 25**

Create a file yourID_Mockonline2_CSE206.cpp. **Download the given template from the classroom. Code on top of it.**

Take a look at the inheritance scenario given above. Note that all inheritances are public inheritance unless stated otherwise.

Now, answer the following questions:

1   Implement the scenario depicted above in C++. Remember to write a parameterized   10
    constructor and destructor for each base and derived class. The constructor sets values for
    ALL the member variables.
    Constructor and Destructor for all 7 classes - 7 marks
    Private inheritance handling - 3 marks

2   Identify **pure virtual functions (2), abstract class (2), and diamond problem** (4) in the   8
    above scenario. Address them accordingly when you implement the classes.

4   Write a delegate function as necessary to do the job of **function ff()** in class **G**.   3

5   Assign an object of class C to a pointer of class B. Then call display() function using that   4
    pointer (2). Ensure that the appropriate display() function is called (2).