



[CS302-Data Structures] Quiz 1

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Q1: You want to dereference a pointer to a class instance as you are trying to access member data. You use the syntax `pointer->member`. Provide an alternative syntax and explain.

A1:

`(*pointer).member`

The pointer is first dereferenced to access the object, then the specific member in the object is accessed. Parentheses are needed as the “.” operator has higher precedence than the “*” operator.

Q2: Which of the followings is/are automatically added to every class, if we do not write our own.

- A. Copy Constructor
- B. Assignment Operator
- C. A Constructor without any parameter
- D. All of the above

A2:

D. All of the above

Q3: Predict the output of the following program

```
#include <iostream>
using namespace std;

class B;
class A {
```

```

    int a;
public:
    A():a(0) { }
    void show(A& x, B& y);
};

class B {
private:
    int b;
public:
    B():b(0) { }
    friend void A::show(A& x, B& y);
};

void A::show(A& x, B& y) {
    x.a = 10;
    cout << "A::a=" << x.a << " B::b=" << y.b;
}

int main() {
    A a;
    B b;
    a.show(a,b);
    return 0;
}

```

Options to select below:

A.	Compiler Error
B.	A::a=10 B::b=0
C.	A::a=0 B::b=0

A3:

B. A::a=10 B::b=0