

Test

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- ① Write the first line of the Specifies for a class Bosworth that is publicly derived from a class Alphonso. ②
- ② True or false: Adding a derived class to a base class requires fundamental changes to the base class. ②
- ③ To be accessed from a member function of the derived class, data or functions in the base class must be _____. ②
- ④ If a base class contains a member function basefunc(), and a derived class does not contain a function with this name, can an object of the derived class access basefunc()? ②

(5) True or false: If no Constructors^(2/7) are specified for a derived class, objects of the derived class will use the Constructors in the base class. (2)

(6) If a base class and a derived class each include a member function with the same name, which member function will be called by an object of the derived class, assuming the scope resolution operator is not used? (2)

(7) True or false: It is sometimes useful to specify a class from which no objects will ever be created. (2)

(8) Assume that there is a class `Deriv` that is derived from the base class `Base`. Write the declarator for a derived-class constructor that

takes one argument and passes this^(3A) argument along to the constructor in the base class. (2)

(9) True or false: A Class D Can be derived from a class C, which is derived from a class B, which is derived from a class A. (2)

(10) Assume a class Derv derived from a base class Base. Both classes contain a member function func() that takes no arguments. Write a statement to go in a member function of Derv that calls func() in the base class. (3)

(11) True or false: It is illegal to make objects of one class members of another class. (2)

Q2. Imagine a publishing Company that markets both book and Audio Cassette versions of its works. Create a class publication that stores the title (a string) and Price (type float) of a publication. From this class derive two classes: book, which adds a page count (type int) and tape, which adds a playing time in minutes (type float). Each of these three classes should have a getdata() function to get its data from the User at the Keyboard, and a putdata() function to display its data.

Write a main() program to test the book and tape classes by creating instances of them, asking the User to fill in the data with

getdata(), and then displaying the data with putdata().

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- ⑬ Define the protected access specifier. How does it differ from private? Illustrate with an example program.

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- ⑭ Which of the following declarations, if any, are incorrect.

Class Base {...};

- a) Class Derived: public Derived {...};
- b) class Derived : Base {...};
- c) class Derived: private Base {...};
- d) class Derived: public Base;
- e) class Derived inherits Base {...};

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15) Given the following base and derived class definitions.

```
struct Base
```

```
{
```

```
    foo(int);
```

```
protected:
```

```
    int bar;
```

```
    double foo-bar;
```

```
};
```

```
struct Derived: public Base
```

```
{
```

```
    foo(char *s);
```

```
    bool bar(Base *pb);
```

```
    void foobar();
```

```
protected:
```

```
    char bar[100];
```

```
};
```

Identify the errors in each of the following examples and how each might be fixed.

a) Derived d; d.foo(1024);

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b) void Derived::foobar() { bar=1024;

c) bool Derived::bar (Base *pb)
{

return foo-bar == pb->foo-bar;}

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