## 习题答案

1. **填空题**

1、派生，基

2、派生类，基类

3、被继承的类，父，新类，子

4、构造函数和析构函数

5、公有，公有和保护

6、保护，成员函数，不可访问

7、私有，成员函数，不可访问

8、避免产生访问的二义性，virtual

9、不可访问

10、多继承

11、派生类从一个基类继承的继承关系，派生类从多个基类继承的继承关系

12、传递性

13、公有成员

14、相反，派生类，成员对象

15、私有派生

1. **选择题**

1、A 2、C 3、B 4、B 5、D 6、A 7、D 8、C 9、D 10、D

11、A 12、C 13、C 14、D 15、A 16、B 17、D 18、D 19、A 20、D

1. **判断题**

1、× 2、× 3、√ 4、× 5、√ 6、× 7、× 8、√ 9、√ 10、×

1. **分析题**

1、

base class1

base class1

base class1

derive1 class2

derive2 class3

2、

(2,3)

(7,10)

6,7

(7,10)

3、

person class constructor

student class constructor

person class constructor

teacher class constructor

teacher class destructor

person class destructor

student class destructor

person class destructor

4、

Constructor of Base2.

Constructor of Basel.

Default constructor of Base3.

Constructor of Member.

Constructor of Derived.

3

4

0

5

1

5、

Base's constructor called:3,2

Derived's constructor called4

Base's constructor called:-6,-1

Derived's constructor called-8

3,2,4

-6,-1,-8

Derived's destructor called.-8

Base's destructor called.-6,-1

Derived's destructor called.4

Base's destructor called.3,2

6、

b=0 a=6

7、

Base::x is1

Derived1::x is2

Derived2's Base::x is 4

Derived2::x is 3

8、

Con A

Con B

Exit Main

Decon b=0

Decon a=6

1. **编程题**

1、

#include<iostream.h>

class Box

{

public:

Box(){ls=12;ms=6;}

void getlwh()

{

cout<<"enter length,width,high:";

cin>>l>>w>>h;

}

void put()

{

cout<<"棱数"<<ls<<"面数"<<ms<<endl;

}

int l,w,h,ls,ms;

};

class ColoredBox:public Box

{

private:

int colores;

public:

void put1()

{

cout<<"有"<<colores<<"种颜色"<<endl;

}

void get(){cout<<"输入颜色种类";cin>>colores;}

};

2、

#include"iostream.h"

class Vehicle

{

public:

int Maxspeed,Weight;

void Run()

{

cout<<"行驶"<<endl;

}

void Stop()

{

cout<<"停车"<<endl;

}

};

class Bicycle:virtual public Vehicle

{

public:

char Color;

};

class Car:virtual public Vehicle

{

public:

char Type;

};

class Motor:public Bicycle, public Car

{

public:

void putin()

{

cout<<"请输入Motor的Maxspeed,Weight,Color,Type "<<endl;

cin>>Maxspeed>>Weight>>Color>>Type;

}

void putout()

{

cout<<"Motor的Maxspeed＝"<<Maxspeed<<" Weight＝"<<Weight<<" Color＝"<<Color<<"　Type＝"<<Type<<endl;

}

};

void main()

{

Motor m;

m.putin();

m.putout();

m.Run();

m.Stop();

}

3、

#include <iostream>

#include <string>

using namespace std;

class Person

{

public:

Person(string n,int a) { Name=n; Age=a; }

~Person() {}

void set(string n,int a) { Name=n; Age=a; }

void show() { cout<<Name<<" "<<Age<<endl; }

private:

string Name;

int Age;

};

class Student:public Person

{

public:

Student(string n,int a,string nu):Person(n,a) { Num=nu; }

~Student() { }

void set(string n,int a,string nu) { Person::set(n,a); Num=nu; }

void show() { Person::show(); cout<<Num<<endl; }

private:

string Num;

};

class CollegeStudents:public Student

{

public:

CollegeStudents(string n,int a,string nu,string s):Student(n,a,nu) { Speciality=s; }

~CollegeStudents() { }

void set(string n,int a,string nu,string s) { Student::set(n,a,nu); Speciality=s; }

void show() { Student::show(); cout<<Speciality<<endl; }

private:

string Speciality;

};

int main()

{

Person p("zhang",21);

Student s("li",22,"1101");

CollegeStudents cs("wang",25,"3215","Computer");

p.show();

s.show();

cs.show();

return 0;

}

4、

#include<iostream.h>

class B0

{

public:

int a;

void display()

{

cout<<"B0::a="<<a<<endl;

}

};

class B1:virtual public B0

{

public:

int a;

void display()

{

cout<<"B1::a="<<a<<endl;

}

};

class B2:virtual public B0

{

public:

int a;

void display()

{

cout<<"B2::a="<<a<<endl;

}

};

class D1:public B1,public B2

{

public:

int a;

void display()

{

cout<<"D1::a="<<a<<endl;

}

};

void main()

{

D1 d;

d.a=3;

d.display();

d.B1::a=4;

d.B1::display();

d.B2::a=5;

d.B2::display();

d.B0::a=6;

d.B0::display();

}

5、

#include<iostream>

#include<string>

using namespace std;

class person

{

public:

person(string nam,string t,string a)

{

name=nam;telephone=t;address=a;

}

protected:

string name,telephone,address;

};

class student:virtual public person

{

public:

student(string nam,string t,string a,string i):person(nam,t,a)

{infor=i;}

protected:

string infor;

};

class staff:virtual public person

{

public:

staff(string nam,string t,string a,string ad,float w):person(nam,t,a)

{office=ad;wages=w;}

protected:

string office;float wages;

};

class teacher: public staff

{

public:

teacher(string nam,string t,string a,string ad,float w,string k):person(nam,t,a),staff(nam,t,a,ad,w),kcheng(k){}

protected:

string kcheng;

};

class zteacher:public teacher,public student

{

public:

zteacher(string nam,string t,string a,string i,string ad,float w,string k):person(nam,t,a),student(nam,t,a,i),teacher(nam,t,a,ad,w,k)

{}

void show()

{

cout<<"name:"<<name<<endl;

cout<<"telephone:"<<telephone<<endl;

cout<<"address:"<<address<<endl;

cout<<"suo xue zhan ye:"<<infor<<endl;

cout<<"bu men di zhi:"<<office<<endl;

cout<<"wages:"<<wages<<endl;

cout<<"jiao shou ke cheng:"<<kcheng<<endl;

}

};

void main()

{

zteacher a("xuan","13584126213","langfang","wangluogongcheng","jiaoqi201",2000,"C++");

a.show();

}