浙江理工大学 2017 —2018 学年第 2 学期
《面向对象程序设计 A》期末试卷（ B ）卷标准答案和评分标准

一．选择题（每小题 2 分，共 20 分）

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

二．阅读程序，写出程序的运行结果(共 29 分)

1. (每行输出结果 2 分，共 4 分)
f(int) 1
f(T) 1.1

2.(每行 1 分，共 8 分)
This is a constructor
This is a constructor
The value of n is 10
The value of m is 10
The value of n is 10
The value of m is 20
This is a destructor!
This is a destructor!

3.(每行输出结果 1 分，共 4 分)
A::A() called.
B::B() called.
B::~B() called.
A::~A() called.

4. (每行输出结果 1 分，共 5 分)
11
12
33
11
32

5. (每行输出结果 1 分，共 8 分)
In main.
In try block, calling MyFunc().
Constructing CDtorDemo.
In MyFunc(). Throwing CTest exception.
Destructing CDtorDemo.
In catch handler.
Caught CTest exception type: Exception in CTest class.
Back in main. Execution resumes here.

四．程序填空题（每空 2 分，共 32 分）

(1) data = new int(a) 或 data = new int[a]
(2) delete data 或 delete []data
(3) width=w; length=len;
(4) double width;
(5) double length;
(6) return Rectangle::area()*high;或 return width*getLength() *high
(7) Rectangle(w, len)
(8)real=r;
(9)Complex&(写成 const Complex &也可)
(10)friend
(11)Complex c(写 成 const Complex &c 或 Complex &c 都 可)
(12)Complex((c1.real+c2.real), (c1.image+c2.image))
(13) virtual void print()
(14) OCT(x){}
(15) OCT *p
(16) p=&he

五．程序设计题（19 分）

1．（6 分）
答案：

```
#include <iostream>
using namespace std;
class Test
{
private:
    int x,y;
public:
        Test(int  x, int  y){this->x=x;  this->y=y; }
        void print( ) {cout<<x<<″-″<<y<<″=″<<x-y;}
};
```

2、（13 分）

```
#include <iostream>

#include <math.h>

using namespace std;

class Shape

{public:

 virtual double area() const =0;

};
```

```
class Circle:public Shape
{public:
Circle(double r):radius(r){}
   virtual double area() const {return 3.14159*radius*radius;};
 protected:
   double radius;
};


class Rectangle:public Shape
{
public:
      Rectangle(double w,double h):width(w),height(h){}
      virtual double area() const {return width*height;}
 protected:
      double width,height;
};

class Triangle: public Shape
{
public:
       Triangle(double aa,double bb, double cc):a(aa),b(bb),c(cc){}
       virtual double area() const
       {
            double s;
            s=1.0/2.0*(a+b+c);
            return (sqrt(s*(s-a)*(s-b)*(s-c)));}
protected:
      double a,b,c ;
};
int main()
{
      Circle circle(12.6);
      Rectangle rectangle(4.5,8.4);
      Triangle triangle(4,4,5.65);
      Shape *pt[3]={&circle, &rectangle, &triangle};
```

```
    double areas=0.0;
    for(int i=0;i<3;i++)
        areas=areas+pt[i]->area();
    cout<<"total of all areas="<<areas<<endl;
    return 0;
}
```