

四川大学期末考试试题（闭卷）

（2020~2021 学年第 2 学期）

B 卷

课程号： 311075030 课程名称： 面向对象程序设计导论 任课教师： _____

适用专业年级： 软件工程 2020 级 学号： _____ 姓名： _____

考生承诺

我已认真阅读并知晓《四川大学考场规则》和《四川大学本科学生考试违纪作弊处分规定（修订）》，郑重承诺：

- 1、 已按要求将考试禁止携带的文具用品或与考试有关的物品放置在指定地点；
- 2、 不带手机进入考场；
- 3、 考试期间遵守以上两项规定，若有违规行为，同意按照有关条款接受处理。

考生签名： _____

题 号	一 (40%)	二 (20%)	三 (40%)
得 分			
卷面总分		阅卷时间	

- 注意事项： 1. 请务必将本人所在学院、姓名、学号、任课教师姓名等信息准确填写在试题纸和添卷纸上；
2. 请将答案全部填写在本试题纸上；
3. 考试结束，请将试题纸、添卷纸和草稿纸一并交给监考老师。
-

评阅教师	得分

一、单项选择题（本大题共 20 小题，每小题 2 分，共 40 分）

提示：在每小题列出的四个备选项中只有一个是符合题目要求的，请将其代码填写在下表中。错选、多选或未选均无分。

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

1. The JVM stands for:
(A) Java virtual model
(B) Java visual model
(C) Java virtual machine
(D) Java visual machine
2. In Java, you can write stand-alone programs known as ().
(A) Application
(B) Midlets
(C) Applets
(D) Servlets

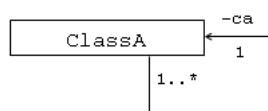
3. Which java tool creates HTML help files from source code?

- (A) javah
- (B) Javadoc
- (C) Java
- (D) javac

4. A stack trace is ().

- (A) only available through a typical debugger's step into feature
- (B) a fatal error that causes a typical debugger to terminate
- (C) a list of variables allocated on a program's stack
- (D) a sequence of method calls

5. Consider the following UML class diagram.



The diagram describes a

- (A) class without methods
 - (B) relationship between a subclass and a superclass
 - (C) one-to-one relationship
 - (D) self-containing class
6. A collection typically models a () relationship.
- (A) one-to-one
 - (B) zero-to-one
 - (C) one-to-many
 - (D) many-to-many
7. Consider the declaration: `int [] int Array = new int [3];` Which expression gives the number of elements in `int Array`?
- (A) `int Array. size`
 - (B) `int Array. length`
 - (C) `int Array. length()`
 - (D) `int Array. size()`
8. Which of the following is not a method of the `Object` class?
- (A) `to String`
 - (B) `clone`
 - (C) `finally`
 - (D) `finalize`

9. What is the output of the following code outline?

```
class Tree { }  
class Oak extends Tree { }  
Tree t = new Oak ( ) ;  
if (t instanceof Tree)  
    System. out. print (" Tree ");  
if (t instanceof Oak)  
    System. out. print(" Oak ");
```

- (A) Tree
- (B) Tree Oak
- (C) Oak
- (D) No output

10. Given: `int x = Integer.parseInt (str);` Which exception should be handled for this statement?

- (A) Number Format Exception
- (B) IO Exception
- (C) Array Index Out Of Bounds Exception
- (D) Class Cast Exception

11. When a subclass defines an instance method with the same return type and signature as a method in its parent, the parent's method is said to be ().

- (A) hidden
- (B) overridden
- (C) private
- (D) overloaded

12. Which of the below is not a valid classification of design pattern?

- (A) Creational pattern
- (B) Structural pattern
- (C) Behavioural pattern
- (D) Strategy patterns

13. Which of the following describes the Composite pattern correctly?

- (A) This pattern builds a complex object using simple objects and using a step by step approach.
- (B) This pattern is used where we need to treat a group of objects in similar way as a single object.
- (C) This pattern hides the complexities of the system and provides an interface to the client using which the client can access the system.
- (D) This pattern is primarily used to reduce the number of objects created and to decrease memory footprint and increase performance.

14. In order to read and write files in Java, you should import which packages ().
- (A) javax. swing
 - (B) java. util
 - (C) java.io
 - (D) java. awt
15. To read from a character stream, you should use a class that extends which of the following abstract classes?
- (A) Reader
 - (B) Input Stream
 - (C) Output Stream
 - (D) Writer
16. The subclass of an abstract class must ().
- (A) be abstract and implement all of the parent's abstract methods
 - (B) implement all of the parent's abstract methods
 - (C) be abstract
 - (D) be abstract or implement all of the parent's abstract methods
17. The lazy instantiation in a singleton pattern create instance ().
- (A) at compile time
 - (B) at load time.
 - (C) when required.
 - (D) none of above
18. If a file opened for reading does not exist, which of the following events will occur in Java?
- (A) A new file will be created.
 - (B) A run-time error will occur.
 - (C) A Null Pointer Exception will be raised.
 - (D) A File Not Found Exception will be raised.
19. In the JDK library are as follows, which one uses singleton design pattern ().
- (A) Wrapper classes
 - (B) Calendar classes
 - (C) Event handling frameworks
 - (D) Collections classes
20. What is the signature of the method specified in the Java ActionListener interface?
- (A) void action Performed (Action Event ae)
 - (B) void action Performed (ActionListener al)
 - (C) void action Listener (Action Event ae)
 - (D) void action Event (Action Performed ap)

评阅教师	得分

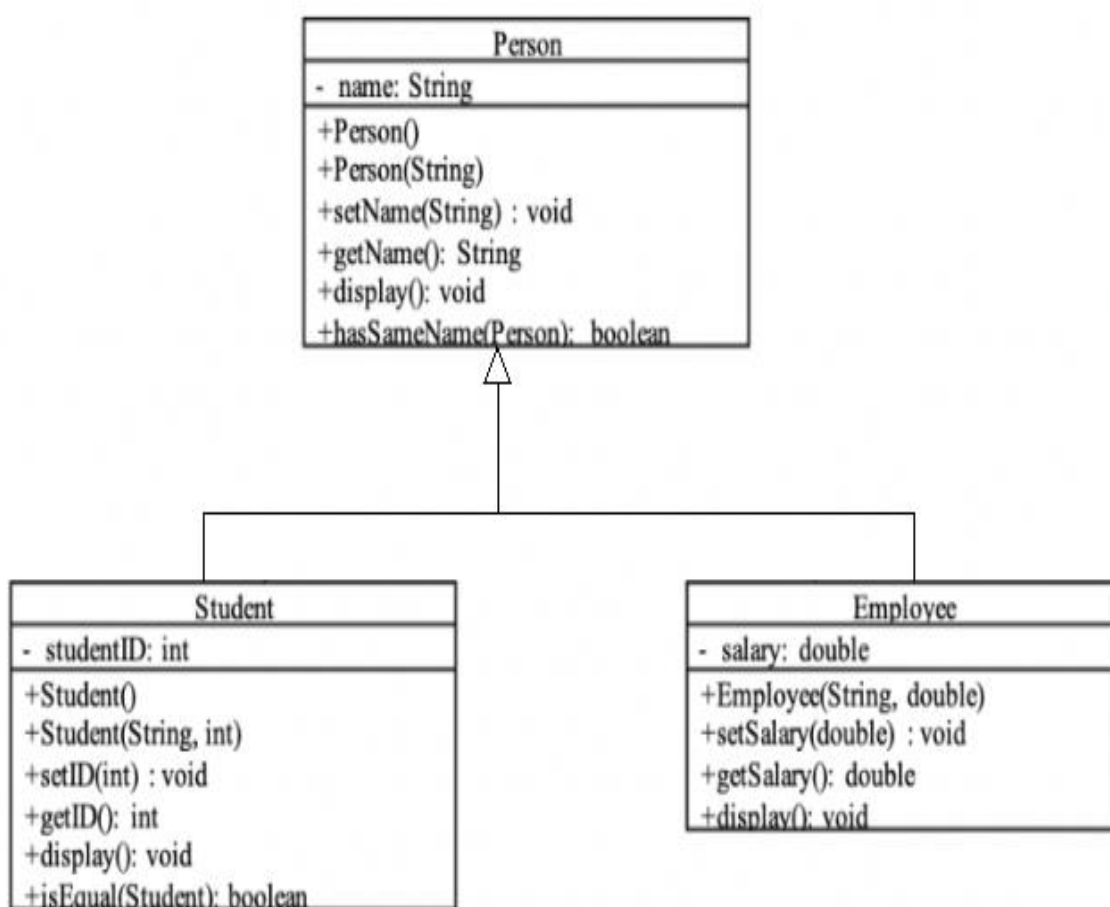
二、问答题（本大题共 20 分）。

Describe two design patterns that are used in java GUI with class diagram. (20 points)

评阅教师	得分

三、编程、设计题（本大题共 40 分）。

1. Use the following UML class diagram to create Java classes: (20 points)



Note that:

- (A) Method display () in Person prints out the name of the person
- (B) Method display () in Student prints out the name and the unique ID of the student
- (C) Method display () in Employee prints out the name and the salary of the employee
- (D) Method has Same Name (Person) compare the names
- (E) Method is Equal (Student) compares the names and ID. It should use the method has Same Name (Person)

2. Create a Java program to do the following: (20 points)

- (A) Read from students.txt file and employees.txt files about 10 Students and 10 Employees.
- (B) Write code to check if there is a duplicate records of students and print them out.
- (C) Write code to check if there is a student and employee who have the same name and print them out.
- (D) Write code to print out the 3 employee with the highest salary.
- (E) Write your java code in this page.

students.txt	employees.txt
Richard 312	Vivian 12300
Michelle 124	Carl 11000
Anna 751	Shirley 7500
Rose 613	Selma 6900
Alice 312	Joy 8000
John 813	Alex 15000
Jack 543	Steven 12800
George 712	Kitty 8100
Clark 784	Tina 7100
Shirley 751	Tony 9600