四川大学期末考试试题（闭卷）

（2017~2018 学年第 2 学期）　　B 卷

课程号：311078040　课程名称：软件工程导论　任课教师：_____

适用专业年级：软件工程 2016 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(20%)	二(10%)	三(15%)	四(20%)	五(35%)
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 1 分，共 20 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. Which of the items listed below is not one of the software engineering layers? (　　)

(A) Process　(B) Tools　(C) Methods　(D) Manufacturing

2. The linear sequential model of software development is (　　)

(A) A reasonable approach when requirements are well defined.

(B) A good approach when a working program is required quickly.

(C) The best approach to use for projects with large development teams.

(D) An old fashioned model that cannot be used in a modern context.

3. The prototyping model of software development is (　　)

(A) A reasonable approach when requirements are well defined.

(B) A useful approach when a customer cannot define requirements clearly.

(C) The best approach to use for projects with large development teams.

(D) A risky model that rarely produces a meaningful product.

4. The system specification describes the (　)

(A) Function, performance and constraints of a computer-based system

(B) implementation of each allocated system

(C) element software architecture

(D) time required for system simulation

5. Which of following is not a UML diagram used creating a system analysis model? (　)

(A) activity diagram　(B) dataflow diagram

(C) swimlane diagram　(D) state diagram

6. Which of the following is not one of the requirement classifications used in Quality Function Deployment (QFD)? (　)

(A) exciting　(B) expected　(C) mandatory（强制的）　(D) normal

7. Which of these is not a standard for assessing software processes? (　)

(A) ISO 9001　(B) SPICE　(C) SEI　(D) CMMI

8. The work products produced during requirement elicitation will vary depending on the (　)

(A) size of the budget（预算）　(B) size of the product being built

(C) software process being used　(D) stakeholders needs

9. Which of the following should not be considered as candidate objects in a problem space? (　)

(A) events　(B) operations　(C) people　(D) structures

10 . Polymorphism(多态) reduces the effort required to extend an object system by (　)

(A) enabling a number of different operations to share the same name.

(B) coupling objects together more tightly.

(C) making objects more dependent on one another.

(D) removing the barriers（障碍） imposed by encapsulation

11. For purposes of behavior modeling a state is any (　)

(A) consumer or producer of data.　(B) data object hierarchy.

(C) observable mode of behavior. (D) well defined process.

12. Which of the following items does not appear on a CRC card? ( )

(A) class collaborators (B) class name

(C) class responsibilities (D) class reliability

13. In component design, elaboration does not require which of the following elements to be described in detail? ( )

(A) Source code (B) Attributes (C) Interfaces (D) Operations

14. Which of the following is not an objective for building an analysis model? ( )

(A) define set of software requirements that can be validated

(B) describe customer requirements

(C) develop a solution for the problem

(D) establish basis for software design

15. Which of the following is not one of the four principles used to guide component-level design? ( )

(A) Dependency Inversion Principle (B) Interface Segregation Principle

(C) Open-Closed Principle (D) Reduce Complexity Principle

16. Which design model is analogous to the detailed drawings of the access points and external utilities for a house? ( )

(A) Architectural design (B) Component-level design

(C) Data design (D) Interface design

17. Bottom-up integration testing has its major advantage that ( )

(A) major decision points are tested early

(B) no drivers need to be written

(C) no stubs need to be written

(D) regression testing is not required

18. In the context of object-oriented software engineering a component contains ( )

(A) attributes and operations (B) instances of each class

(C) roles for each actor (device or user) (D) a set of collaborating classes

19. Which of the following tests is a system test that forces the software to fail in a variety of ways and verifies that software is able to continue execution without interruption? （ ）

(A) security testing (B) performance testing (C) stress testing (D) recovery testing

20. Effective software project management focuses on four P's which are　(　　)

(A) people, product, performance, process

(B) people, performance, payoff, product

(C) people, process, payoff, product

(D) people, product, process, project

评阅教师	得分

二、判断题（本大题共 10 小题，每小题 1 分，共 10 分）

提示：正确打✓，错误打×。

1	2	3	4	5	6	7	8	9	10

1. The nature of software is changing..　（　　）
2. Each process model can be described by a same process flow.　(　　)
3. Change can be easily accommodated in most software systems.　（　　）
4. Requirement engineering tasks are conducted to establish a solid foundation for design and construction..　（　　）
5. Scenario-based models depict software requirements from the user's point of view . (　　)
6. Software architecture provides a local view of the system to be built.　（　　）
7. Component-level design ultimately depicts the software at a level of abstraction that is close to code.（　　）
8. Testing should find all errors in a program prior to delivery to the end user.　（　　）
9. Software testing accounts for the least percentage of technical effort in the software process . (　　)
10. Software project management is an umbrella activity within software engineering.　（　　）

评阅教师	得分

三、名词解释（本大题共 5 小题，每小题 3 分，共 15 分）

提示：解释每小题所给名词的含义，若解释正确则给分，若解释错误则无分，若解释不准确或不全面，则酌情扣分。

1	2	3	4	5

1. requirements engineering
2. class
3. Functional independence
4. Refactoring

5. Top-Down integration testing

评阅教师	得分

四、问答题（本大题共 2 小题，每小题 10 分，共 20 分）。

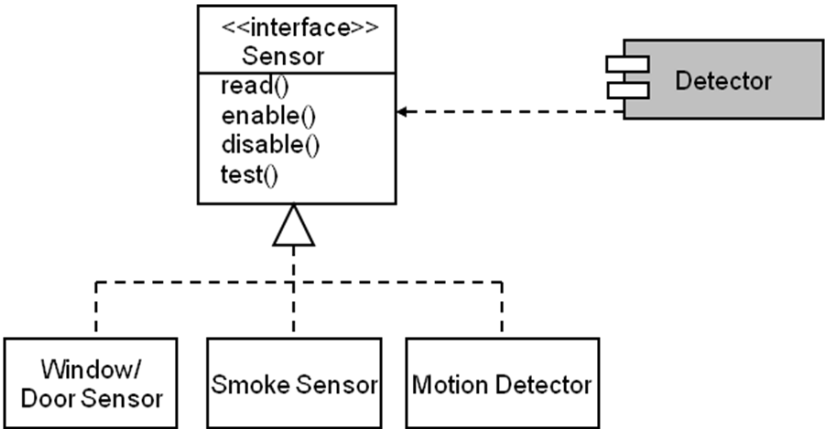
1. List the types of models that might be used in requirements modeling and explain the role of each type of model.

2. Why is a highly coupled module difficult to unit test?

评阅教师	得分

五．分析设计题（本大题共2小题，共35分）。

1. Describe OCP design principle, and analyze the underneath figure how to follow the OCP principle. (共 15 分)



2. Using your knowledge of how an ATM(自动取款机) system is used,

(1) develop a activity diagram for withdraw(取钱) . (10 分)

(2) develop a user interface for the system. （10 分）