

四川大学期末考试试题（开卷）

（2017~2018 学年第 2 学期）

B 卷

课程号： 311082030 课程名称： 软件设计与体系结构 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(10%)	二(20%)	三(10%)	四(10%)	五(50%)
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（共 10 题，每题 1 分，共 10 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

1. What structure is used for project managing? ()
 - (A) Use structure
 - (B) Concurrency structure.
 - (C) Service structure
 - (D) Working assignment structure
2. Which main architectural pattern was taken by the TCP/IP network protocol? ()
 - (A) MVC
 - (B) Client/Server
 - (C) Layer
 - (D) Map/reduce
3. What kind of structure does the concurrency structure belong to? ()
 - (A) Layer structure
 - (B) C&C structure
 - (C) Model structure
 - (D) Allocation structure

4. Which structure of the following supports performance? ()
- (A) Layer structure
 - (B) Uses structure
 - (C) Concurrency structure
 - (D) Data model structure
5. Which category of design decision is most relevant to performance? ()
- (A) Allocation of responsibilities
 - (B) Coordination model
 - (C) Data model
 - (D) Management of resource
6. Which one of the following is correct about the architecture pattern? ()
- (A) Pattern provide packaged strategies for solving some of the problem facing a system
 - (B) Pattern is identical to the architecture
 - (C) Pattern is equal to the architecture structure
 - (D) Multi-tier pattern is equal to the layer pattern
7. Which one of the following is the process recommendation when we designed architecture? ()
- (A) Architecture must be well-documented
 - (B) Quality attributes should be achieved using well-known architectural pattern and tactics specific to each attribute
 - (C) Separate data producers from data consumers
 - (D) Never depend on a particular version of a commercial product or tool
8. What quality attribute is supported by Authority tactic? ()
- (A) Availability
 - (B) Modifiability
 - (C) Performance
 - (D) Security
9. Which pattern of the following belongs to allocation pattern? ()
- (A) SOA
 - (B) Map Reduce
 - (C) P2P
 - (D) Layer
10. Which pattern of the following supports the high availability? ()
- (A) Broker
 - (B) Pipe and Filter
 - (C) P2P
 - (D) Layer

评阅教师	得分

二、多项选择题（共 10 题，每题 2 分，共 20 分）

提示：在每小题列出的五个备选项中有二个至五个是符合题目要求的，请将其代码填写在下表中。错选、多选、少选或未选均无分。

1	2	3	4	5	6	7	8	9	10

- Which contexts influence on the architecture? ()
 - Technical
 - Project
 - Business
 - Professional
 - Hobby
- Which concepts of the following are correct about the software architecture? ()
 - Software architecture is consisted of a structure
 - Software architecture is an abstraction
 - Every software system has a software architecture
 - Not all architecture are good architecture
 - Architecture evaluation is valuable
- Which structure of the following does map from software elements to the non-software elements? ()
 - Client server structure
 - Work assignment structure
 - Deployment structure
 - Implementation structure
 - Layer structure
- Why developers might not be faithful to the software architecture? ()
 - Software architecture might not have been documented
 - Software architecture might not have been disseminated
 - Software architecture might be too confusing
 - Architect did not communicated with developer
 - Developer don't care about the software architecture
- Which roles of the following does the stakeholder of a software system include? ()
 - Seller
 - Customer
 - End user
 - Developer
 - Architect

6. Which patterns of the following belong to component and connector pattern? ()
- (A) Pipe and Filter
 - (B) SOA
 - (C) P2P
 - (D) Layer
 - (E) MVC
7. Which parts of the quality attribute scenario are the hearts of the quality attribute specification? ()
- (A) Source of stimulus
 - (B) Stimulus
 - (C) Response
 - (D) Response measure
 - (E) Artifact
8. Which items of the following are comprised in pattern? ()
- (A) Requirement
 - (B) Testing
 - (C) Solution
 - (D) Problem
 - (E) Context
9. Which categories of the applications use the Broker patterns? ()
- (A) CORBA
 - (B) EJB
 - (C) SOA
 - (D) OOA
 - (E) DOS
10. Which applications of the followings is Pipe and Filter pattern applied to? ()
- (A) Calculator
 - (B) Data transformation system
 - (C) Video stream
 - (D) map-reduce pattern
 - (E) Cloud

评阅教师	得分

三、判断改错题（共 5 题，每题 2 分，共 10 分）

提示：正确打√，错误打✖，将其结果填写在下表中，并改正。

1	2	3	4	5

1. The maintain an audit trail tactic supports the availability quality attribute. ()

改错：

2. The Ping/echo tactic is used to detecting faults. ()

改错：

3. Map-reduce pattern supports the availability quality attribute. ()

改错：

4. Tactics comprise pattern. ()

改错：

5. CBAM(Cost Benefit Analysis Method) evaluation is based on an architectural strategy. ()

改错：

评阅教师	得分

四、名词解释（共5题，每题2分，共10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. Architecture pattern (total 2points)

2. Confidentiality (total 2points)

3. Integrity (total 2points)

4. Sensitivity point (total 2points)

5. Architecture Influence Cycle (total 2points)

评阅教师	得分

五、问答题（共 5 题，每题 10 分，共 50 分）

1. List the six parts of quality attributes scenario according to the following description and determine what quality attribute is the description? (total 10 points)

A user wanted to purchase a book from eBay website. After he had selected books and pressed the order button, the order was processed in two second. (total 10 points)

2. Whether or not do all systems have the performance requirements? (total 10 points)

3. Explain the differences between the security and safety quality attributes? (total 10 points)

4. How do you improve the performance of Broker patterns? (total 10 points)

5. Talk about your understand about the software architecture and software quality. (total 10 points)