选择题

1）Which ones of the following are the primary benefits of object-oriented architectures?
    (A) improved execution performance (B) simplified interfaces
    (C) information hiding (D) easy component reuse

2）The design description of an object can take one of the following forms _____
    (A) operator sequences (B) protocol description (C) implementation description (D) object template

3）Notations for depicting procedural detail include _____
    (A) box diagram (B) ER diagram (C) flow chart (D) decision table

4）Interface consistency implies that
  A) each application should have its own distinctive look and feel
  B) input mechanisms remain the same throughout the application
  C) navigational methods are context sensitive
  D) visual information is organized according to a design standard

5) Which model depicts the profile of the end users of a computer system?
A) design model   C) user model
B) implementation model   D) user's model

判断题

1）面向对象的类构件有三种重用方式，分别是实例重用、继承重用和多态重用。（ ）

2）Improved execution performance is one of the primary benefits of object-oriented architectures.

3）Unlike structured analysis, top-down decomposition and consideration of end-to-end processing sequences are not present when OOA is used. （ ）

4）Object-oriented designs do not need to be implemented using object-oriented programming techniques.

5）Improved execution performance is one of the primary benefits of object-oriented architectures.

6）When using structured design methodologies the process of stepwise refinement is unnecessary.

7）Program flow chart is easier to maintain than PDL for procedural designing.

8）Information about one thing should be localized with a single class, not distributed across multiple classe

9）Components should be loosely coupled to one another and to the external environment.

10) The computer's display capabilities are the primary determinant of the order in which user interface design activities are completed.

11) In component-level design "persistent data sources" refer to component libraries.

12) Low coupling and high cohesion should be preferred during the component level design.

简答题

1） 试比较面向结构方法学与面向对象方法学的特点。

2） Explain why encapsulation, inheritance, and polymorphism are three important characteristics of object-oriented systems. (9 pts.)

3） How do object-oriented design and structured design differ?

4） Please describe the three most important characteristics of object-oriented systems.

论述题

1） Given the description of a system, please analyze the system requirements and complete the requested models. (45 pts.)

Online Digital Library System description: The system is supposed to provide online service of a digital library. A user can remote login to the server through a web browser, if the user can pass the authentication and has a positive balance in his (or her) account. The system will then display a list of books, related information and status, according to the user's authority and record of interests. By clicking on a book's title, the user can fetch the content of the book from the server, decode it and display it on screen. The user can view the abstract or the complete content of the book. After a transaction is made by clicking on a proper link, the system will start counting the charge (according to some rate × the price of the book). At the mean time, the system will collect some statistical data from the online reading records (such as a ranklist of popular books). The system is also supposed to provide an interface for users to check account balance.

3.Please design the system architecture. (8 pts.)

2） Given the description of a system, please analyze the system requirements and complete the requested models. (40 pts.)

Order-Processing System description: A company is establishing a new catalog sales division to sell casual apparel and outdoor merchandise. The catalog will be published on the World Wide Web, and orders can be placed by e-mail, via the Web site, or via telephone, or fax. A client/server system will be built to support order processing at the company site. Shipment can be made if payment is by credit card, and must wait until the check is cashed if payment is by check.

2.Please draw the data flow diagram for the system. (10 pts.)

3） Given the description of a system, please analyze the system requirements and complete the requested models. (40 pts.)

Water-Monitoring System description: The water-monitoring system is to gather data at many points throughout a river valley. At the collection sites, several calculations are done according to the data (date, direction, level, flux, rainfall, etc.) and the results (statistics, forecast, summary report, etc.) are communicated to a central location for comprehensive reporting. An automatically generated report mainly contains charts and tables of all kinds of data collected from different locations, together with a summary document. Different department is allowed

to access different part of a report.

1. Please design the system architecture. (8 pts.)

4）拟开发一个机票预订系统 ZDBKG。该系统有如下需求："旅行社把预订机票的旅客信息（姓名、性别、工作单位、身份证号码、旅行时间、旅行目的地等）输入系统，系统为旅客安排航班，打印出取票通知和帐单，旅客在飞机起飞的前一天凭取票通知和帐单交款取票，系统校对无误即印出机票给旅客。"所开发的系统要求在网络平台上运行。下面两套题目中，请你**任选一套**完成。请圈出你的选择： **A   B**

	A	**B**

1. 完成系统的概要设计说明书。（6 分）