

I. 選擇題 (每一個內題, 請選一個最好的答案)

MULTIPLE-CHOICE QUESTIONS (每題 5 分, 共 12 題)

1. CMA 1289 5-7  
The database approach to systems and the resulting concept of database management systems have several unique characteristics not found in traditional (flat-file) systems, specifically file-oriented systems. Which one of the following statements does not apply to database-oriented systems?
  - a. Database systems have data independence; that is, the data and the programs are maintained separately, except during processing.
  - b. Database systems contain a data definition language that helps describe each schema and subschema.
  - c. The database administrator is the part of the software package that instructs the operating aspects of the program when data are retrieved.
  - d. A primary goal of database systems is to minimize data redundancy.
  - e. Database systems increase user interface with the system through increased accessibility and flexibility.
2. CMA 685 5-30  
One of the first steps in the creation of a database is to
  - a. define common variables and fields used throughout the firm.
  - b. increase the secondary storage capacity.
  - c. obtain software that will facilitate data retrieval.
  - d. integrate the accounting system into the database.
  - e. study the need for a larger central processing unit.
3. CMA 685 5-33  
If a database has integrity, the
  - a. software was implemented after extensive acceptance testing.
  - b. database has only consistent data.
  - c. database is secure from accidental entry.
  - d. database and the system have been reviewed by an external auditor.
  - e. incidence of failure for the database is within statistically acceptable limits.
4. CMA 687 5-14  
The installation of a database management system is not likely to have any direct impact on
  - a. data redundancy within files.
  - b. sharing of common data.
  - c. inconsistencies within common data fields.
  - d. the logic needed to solve a problem in an application program.
  - e. the internal control of data accuracy and access.
5. CMA 1287 5-3  
The increased use of database processing systems makes managing data and information a major information service function. Because the databases of an organization are used for many different applications, they are coordinated and controlled by a database administrator. The functions of a database administrator are
  - a. data input preparation, database design, and database operations.
  - b. database design, database operation, and database security.
  - c. database design, database operation, and equipment operations.
  - d. database design, software support, and database security.
  - e. database operations, hardware support, and software support.
6. CMA 689 5-8  
A disk storage unit may be preferred over a magnetic tape drive system because the disk storage unit
  - a. is a cheaper medium for data storage.
  - b. offers random access to data files.
  - c. offers sequential access to data files.
  - d. can be measured in bytes per inch.
  - e. has nine tracks.
7. CIA 1186 III-33  
In an inventory system on a database management system, one stored record contains part number, part name, part color, and part weight. These individual items are called
  - a. fields.
  - b. stored files.
  - c. bytes.
  - d. occurrences.

(背面仍有題目, 請繼續作答)

8. CIA 1187 III-28  
Which of the following is a characteristic of a database system?
- Data within the system exist separately from programs.
  - Database processing is inherently simple.
  - A database system is relatively inexpensive to purchase or develop.
  - Database processing was developed to meet microcomputer requirements.
9. CMA 1289 5-6  
A system with several computers that are connected for communication and data transmission purposes but that permits each computer to process its own data is a
- distributed data processing network.
  - centralized network.
  - decentralized network.
  - multidrop network.
  - hybrid system.
10. For those instances where individual users may be granted summary and statistical query access to confidential data to which they normally are denied access, which type of control is MOST suitable?
- user-defined procedures
  - data encryption
  - inference controls
  - biometric devices
11. CMA 685 5-31  
The identification of users who have permission to access data elements in a database is found in the
- operating system.
  - systems manual.
  - database schema.
  - database authority table.
  - application programs.
12. A checkpoint or restart procedure is primarily designed to recover from
- programming errors.
  - data input errors.
  - computer operator errors.
  - hardware failures.
  - All of the above.

## II. 問答題

(每題 20 分, 共兩題)

- The Woods Manufacturing Corporation has a flat-file processing system. The information processing facility is very large. Different applications, such as order processing, production planning, inventory management, accounting systems, payroll, and marketing systems, use separate tape and disk files. The corporation has recently hired a consulting firm to investigate the possibility of switching to a database management system. Prepare a memo to the top management team at Woods explaining the advantages of a database management system (DBMS). Also, discuss the necessity of a database administrator and the job functions this person would perform.
- Explain the deadlock phenomenon in the database information system. Discuss how it could occur with a phone-in mail order system that locks the inventory records until the order is complete.