

系所組別：資訊管理研究所甲組

考試科目：管理資訊系統

考試日期：0306，節次：2

※ 考生請注意：本試題  可  不可 使用計算機

1. Multiple choice questions 單選題，每題3分

(1) The chief information officer is a(n) \_\_\_\_\_ level IT manager.

- A. Departmental B. Operational C. Tactical D. Strategic E. None of these

(2) Outsourcing and offshoring are two popular ways to make more efficient use of information technology. They differ in that

- A. Offshoring is production offshoring; outsourcing is services offshoring.
- 
- B. Offshoring is only for software development; outsourcing is broader in scope.
- 
- C. Offshoring relocates an organization's actual business processes (including production/manufacturing) to a lower-cost location, usually overseas; outsourcing does not always relocate overseas or to a lower-cost location.
- 
- D. None of these

(3) Decisions made at the tactical management level tend to be more:

- A. Structured B. Semistructured C. Unstructured D. Self-structured E. None of these

(4) What is the major goal of KM:

- A. Convert all tacit knowledge into explicit knowledge.
- 
- B. Formalize content management procedures in order to fully standardize within an organization.
- 
- C. Ensure that all knowledge resides within the organization and not within the knowledge workers of that organization.
- 
- D. Populate organizational databases
- 
- E. Promote knowledge reuse and organizational innovation.

(5) Which of the following describes how data are organized and how to use them effectively?

- A. data directory B. data indexing C. data filed D. metadata E. None of these

(6) Which of the following is a critical aspect of data warehousing that includes reconciling conflicting data definitions and formats organizationwide?

- A. Data modification B. Fact refinement C. Data purification
- 
- D. Data cleansing E. None of these

(7) What system utility should be used to correct disk performance problems caused by scattered portions of files on the computer disk?

- A. Search B. File manager C. Disk defragmentation D. Disk scanning E. None of these

(8) Let X be a class and Y be a new class derived from X. Also, two variables are declared as

X x;

Y y;

then the situation when a derived class provides a function already provided in the base class is named as?

- A. Inheriting B. Overriding C. Overloading D. Instantiating E. None of these

(9) Following question (8), we define two functions in which function f has an argument of type X and function g has an argument of type Y. Which statement is correct?

(背面仍有題目,請繼續作答)

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- A. Both  $f(y)$  and  $g(y)$  are legal function calls.
- B.  $f(y)$  is legal, but  $g(y)$  is not legal.
- C.  $f(y)$  is not legal, but  $g(y)$  is legal.
- D. Neither  $f(y)$  nor  $g(y)$  is a legal function call.
- E. None of these.

(10) Following question (9), what class would be the best base class if one hopes to quickly implement a Stack class?

- A. Bag.
- B. List.
- C. Queue.
- D. Table.
- E. None of these.

## 2. Short answer questions and discussion

(1) Please segment 140.116.53.0 into five sub-domains. Identify the address ranges of these sub-domains and the subnet mask for this segmentation.(5%)

(2) The iTunes App Store opened its doors in middle 2009 and has been a huge success, at least based on the numbers of applications available (more than 10,000) and the number of downloads (more than 300 millions). With a size getting close to 20 or 30 million owners worldwide, the market for iPhone apps sure looks like a gold mine. It was pointed out that the business models for iPhone apps are Free apps, Big fast sales, and Sustained sales. Please explain how these different business models work for iPhone developers in general, for niche markets, and for the scientific market.(15%)

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## 3. 單選題：(30%，每題 3%)

- (1) What kind of information systems should be in place if one intends to achieve the task of providing sales managers the effects on sales performance of a particular promotional campaign?
- Decision support systems.
  - Expert systems.
  - Office automated systems.
  - Enterprise resource planning systems.
  - Customer relationship management systems.
- (2) Which of the following is NOT true regarding the nature of various information systems?
- Strategic information systems apply information technology to a company's products, services, or business process to help it gain competitive advantages.
  - Manufacturing execution systems are used in real time documenting, controlling, and management of an entire manufacturing process that includes machines, personnel, and support services.
  - Web-based learning systems are learning technology systems that encourage interaction and communication between learners and instructors in order to facilitate teaching and learning.
  - Electronic commerce systems, as a type of inter-organizational information systems, enable organizations to conduct transactions with other businesses as well as individual consumers.
  - Business intelligence systems provide computer-based support for complex, non-routine decisions, primarily for top and middle managers.
- (3) Which of the following is NOT a major threat of wireless networks?
- Rogue access points.
  - War driving.
  - Wireless fidelity.
  - Eavesdropping.
  - Radio frequency jamming.

(背面仍有題目,請繼續作答)

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- (4) The issues of technology ethics have become one of the important concerns of IT professionals. An example is the issue related to \_\_\_\_\_, which aims to make sure that individuals affected by a particular technology understand and accept the corresponding risks.
- Proportionality.
  - Minimized risk.
  - Justice.
  - Informed Consent.
  - Privacy Infringement.
- (5) A virtual company is an organization that uses information technology to link people, assets, and ideas. Which of the following is NOT one of the reasons for executives and managers to form a virtual company?
- To enable rapid responses to quickly changing market and enhance the ability of member organizations to add values to their supply chain.
  - To help them better manage a network of people, knowledge, and resources provided by many business partners.
  - To capture market opportunities more quickly.
  - To have more control over their entire business operations.
  - To share infrastructure and risk with alliance partners.
- (6) Which of the following is NOT one of the trends of cost savings and operational efficiencies related to green computing?
- Virtualization which aims to transforming physical equipments and machines into software-based entities.
  - Data de-duplication which eliminates redundant data by means of the use of various algorithms and techniques.
  - Enforcement of organizational policies which aim to reduce the change of business processes enabled by information technology.
  - The use of solid-state disks which reduces the consumption of energy.
  - Cloud computing which allows an organization to purchase the IT functions it needs in a more flexible manner.

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- (7) Which of the following statement is NOT true regarding the features of decision support systems (DSS)?
- Compared to the conventional management information systems (MIS) systems which generate a flood of data and creating the paradox of the Information Age -- "lots of data but no information to manage the business," DSS aim to capture all relevant data at the level of detail necessary to provide actionable information in their data banks.
  - The statistical bank of a DSS contains the software to perform the various types of statistical analyses in order to provide managers with information related to their main tasks, such as time series analysis for determining trends and seasonalities, and regression analysis for demand forecasting.
  - The model bank of a DSS contains a variety of models that addresses the decision-problems of interest to the user group.
  - The interface of a DSS should contain internal edit checks to prevent the system from crashing because of input errors by users. The error-handling procedures should also flag inconsistent or inappropriate selections made by users.
  - A predictive model developed by a DSS is used to recommend the solution to a decision problem based on a specified criterion
- (8) \_\_\_\_\_ experts are responsible for the collection, preservation, and analysis of computer-related evidence.
- Ethical hacking.
  - Computer forensics.
  - Hash coding.
  - Symmetric encryption
  - Steganography.
- (9) Which of the following difficulties in managing data is related to the drawback of a relational database?
- Data have complex interrelationships which may lead to difficulties in processing data.
  - External data must be included to support decision making.
  - Data security, quality, and integrity are essential but difficult to ensure.
  - Data are scattered in multiple locations throughout the organization.
  - Huge quantities of data that must be kept for a long time.

(背面仍有題目,請繼續作答)

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- (10) Which of the following is true regarding the development of information systems?
- Application leasing is a method of delivering software, in which a vendor hosts the applications, and customers access these applications over the Internet.
  - Systems analysis describes how a system will solve the business problem, and systems design describes what the system must do to accomplish the task.
  - The IT infrastructure delineates the way an organization's information resources should be used to accomplish its mission.
  - When systems are created rapidly, without a formal development methodology testing and documentation may be inadequate.
  - The traditional Systems Development Life Cycle (SDLC) encourages changes to user requirements once they have been established.

**4. 簡答題：(20%)**

- Briefly describe what CMMI is and its process area categories. (10%)
- Design a data model of a system configuration database which keeps records of the system components, versions, releases and changes of an information system. (10%)