



Introduction to Computing

Fact Sheet 2008

TEST INFORMATION

This test was developed to enable schools to award credit to students for knowledge equivalent to that which is learned by students taking the course. The school may choose to award college credit to the student based on the achievement of a passing score. The ultimate passing score for each examination is determined by the school. The school is provided with a recommended passing score established by a national committee of college faculty who teach this course. The DSST program is approved by the American Council on Education (ACE), and the ACE provides both a recommended passing score and a recommended number of credits that could be awarded to successful students. Some schools set their own standards for awarding credit and may require a higher score than the ACE recommendation. Students should obtain this information from the institution from which they expect to receive credit.

The use of nonprogrammable calculators is permitted during the test. Scratch paper for computations will be provided. A calculator function is available during computer-based exams.

CONTENT OUTLINE

The following is an outline of the content areas covered in the examination. The approximate percentage of the examination devoted to each content area is also noted.

Introduction to Computing Exam Content Outline

I. Computer Organization and Hardware – 20%

- A. Processing components
- B. Primary storage
- C. Peripherals
- D. Architectures
- E. Data representation
- F. Units of measurement

II. Systems Software – 15%

- A. Operating systems

- B. Utilities
- C. User interfaces

III. Application Software – 15%

- A. Word processing and desktop publishing
- B. Spreadsheets
- C. Hypertext, multimedia and presentation software
- D. Databases
- E. Graphics
- F. Software licensing

IV. Communications and Networks – 20%

- A. World Wide Web
- B. Personal communications
- C. Networks access
- D. Network architectures
- E. Data communications
- F. Safety and security
- G. Mobile networks

V. Software Development – 10%

- A. Software life cycle
- B. Programming methodology
- C. Data types and algorithms
- D. Program constructs
- E. Logic concepts
- F. Software development tools

VI. Social Impact and History – 20%

- A. History
- B. Ethical/legal issues
- C. Safety and security
- D. Careers in Computer Science and Information Systems
- E. Social issues

REFERENCES

The following references were used to create exam questions and may be useful as study materials. You are not allowed to use these references in the testing center.

1. *New Perspectives on Computer Concepts*, 10th Edition-Comprehensive, 2008, June Jamrich Parsons and Dan Oja, Thomson Course Technology, 25 Thomson Place, Boston, MA 02210, www.course.com.
004 PAR, 9th ed., 2007
004 PAR, 10th ed., 2009

2. *Using Information Technology: A Practical Introduction to Computers & Communications*, Seventh Edition, 2007, Brian Williams and Stacey Sawyer, McGraw-Hill, Two Penn Plaza, New York, NY 10121, books.mcgraw-hill.com.
004 WIL, 8th ed., 2010

SAMPLE QUESTIONS

All test questions are in a multiple-choice format, with one correct answer and three incorrect options. You may want to review these samples for the type of questions that may appear on the exam.

1. Which of the following computers is intended to support the largest number of users simultaneously?
 - A. Personal computer
 - B. Workstation
 - C. Graphics terminal
 - D. Mainframe

2. What is the term for a utility program that is used to make a copy of all the files on a disk?
 - A. Backup
 - B. Defragmenter
 - C. Formatter
 - D. Translator

3. What is the term for a computer that processes requests from other computers to access a data base?
 - A. Client
 - B. Data warehouse
 - C. Server
 - D. Router

4. Which stage of the software life cycle usually requires the most time and effort?
 - A. Design
 - B. Requirements analysis
 - C. Maintenance
 - D. Coding

5. The first electronic digital computer was produced in the
 - A. 1920s
 - B. 1940s

- C. 1960s
- D. 1980s

6. What is a mechanism that prevents unauthorized access to computers that reside on a network?
 - A. Sniffer
 - B. Spoofer
 - C. Firewall
 - D. Ethernet

Answers to sample questions: 1-D; 2-A; 3-C; 4-C; 5-B; 6-C.

CREDIT RECOMMENDATIONS

The Center for Adult Learning and Educational Credentials of the American Council on Education (ACE) has reviewed and evaluated the DSST test development process and has made the following recommendations:

Area or Course Equivalent	Introduction to Computing
Level	Lower level baccalaureate
Amount of Credit	Three (3) semester hours
Source	ACE Commission on Education Credit and Credentials

It is advisable that schools develop a consistent policy about awarding credit based on scores from this test and that the policy be reviewed periodically. Prometric will be happy to help schools in this effort.

Rev. 20080509 - I.N.390536



Management Information Systems

Fact Sheet 2008

TEST INFORMATION

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CONTENT OUTLINE

The following is an outline of the content areas covered in the examination. The approximate percentage of the examination devoted to each content area is also noted.

Management Information Systems Exam Content Outline

- I. **Computer Hardware – 9%**
 - A. History and evolution
 - B. Terminology
 - C. Hardware components
 - D. Hardware devices
- II. **Computer Software – 10%**
 - A. History and evolution of computer software and programming
 - B. Terminology
 - C. Types of software
- III. **Telecommunications and Networks – 13%**
 - A. Terminology
 - B. Strategic importance to the enterprise
 - C. Components of telecommunications and networks
 - D. Network security
 - E. Topology and protocols
- IV. **Business Information Systems – 15%**
 - A. Electronics commerce
 - B. Types of information systems
 - C. Enterprise resource planning, customer relationship management, supply chain management systems
- V. **Systems Analysis and Design – 14%**
 - A. Characteristics of a system
 - B. Systems architecture
 - C. Systems development life cycle
- VI. **Managing Data Resources – 15%**
 - A. Data models
 - B. Database management systems
 - C. Data query and update
- VII. **Business Decision Making – 10%**
 - A. Knowledge management
 - B. Data warehousing
 - C. Data mining
- VIII. **MIS and the Organization – 5%**
 - A. Organization of MIS
 - B. Relationship of MIS to the enterprise
 - C. Value of the MIS function
- IX. **MIS Issues – 9%**
 - A. Security
 - B. Ethics
 - C. Privacy
 - D. Global issues

REFERENCES

The following references were used to create exam questions and may be useful as study materials. You are not allowed to use these references in the testing center.

1. *Management Information Systems*, Tenth Edition, 2007, Raymond McLeod and George Schell, Prentice Hall/Pearson Education, One Lake Street, Upper Saddle River, NJ 07458, vig.prenhall.com. **658.4038 MCL 10th ed. 2007**
2. *Management Information Systems: Solving Business Problems with Information Technology*, Fourth Edition, 2006, Gerald Post and David L. Anderson, McGraw-Hill, Two Penn Plaza, New York, NY 10121, books.mcgraw-hill.com. **658.4038 POS, 4th ed., 2006**

SAMPLE QUESTIONS

All test questions are in a multiple-choice format, with one correct answer and three incorrect options. You may want to review these samples for the type of questions that may appear on the exam.

1. A computer-based information system consists of which of the following elements?
 - A. Computers, keyboards, display monitors, hard disks, and printers
 - B. People, procedures, data, programs, and computers
 - C. Input, processing, storage, and output
 - D. Planning, programming, organizing, and evaluating
2. Which of the following characteristics of a system reflects the fact that all systems are comprised of subsystems?
 - A. Synergy
 - B. Differentiation
 - C. Regulation
 - D. Hierarchy
3. The process by which workers develop their own applications, with or without the help of professional MIS staff, is called
 - A. decentralized computing
 - B. distributed computing
 - C. end-user computing
 - D. client/server computing
4. A database management system must include which of the following components?
 - I. A data definition language
 - II. A data manipulation language
 - III. A data dictionary
 - IV. A data redundancy protocol
 - A. I only
 - B. I and II only
 - C. I, II, and III only
 - D. I, II, III, and IV
5. Which of the following is NOT a benefit of electronic data interchange (EDI)?
 - A. It reduces errors
 - B. It reduces the volume of invoices or orders
 - C. It reduces transaction processing costs
 - D. It saves time
6. Which of the following terms is used to describe the transmission of data one character at a time?
 - A. Synchronous
 - B. Asynchronous
 - C. Half-duplex
 - D. Full-duplex
7. Multiplexors and concentrators are used in telecommunication systems to do which of the following?
 - A. Perform high-speed arithmetic operations
 - B. Increase utilization of the communication lines
 - C. Store and retrieve data
 - D. Display data on the monitor
8. Which of the following systems development approaches involves a highly iterative process of building, using, evaluating, and refining?
 - A. System development life cycle (SDLC)
 - B. Top-down analysis (TDA)
 - C. Prototyping
 - D. Critical-path analysis

9. In MIS the concept of “outsourcing” can be best defined as which of the following?
- I. An option that some organizations use to control data processing costs
 - II. A process of releasing an organization’s computer operations to an external vendor
 - III. A data support and retrieval system that organizations can access electronically
- A. I only
 - B. I and II only
 - C. II and III only
 - D. I, II, and III

Answers to sample questions: 1-B; 2-D; 3-C; 4-C; 5-B; 6-B; 7-B; 8-C; 9-B.

CREDIT RECOMMENDATIONS

The Center for Adult Learning and Educational Credentials of the American Council on Education (ACE) has reviewed and evaluated the DSST test development process and has made the following recommendations:

Area or Course Equivalent	Management Information Systems
Level	Upper-level baccalaureate
Amount of Credit	Three (3) semester hours
Source	ACE Commission on Education Credit and Credentials

It is advisable that schools develop a consistent policy about awarding credit based on scores from this test and that the policy be reviewed periodically. Prometric will be happy to help schools in this effort.

Rev. 20080715 - I.N.390551