#### **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.

 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.  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.

#### **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.



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