

# DSST® INTRODUCTION TO COMPUTING

## EXAM INFORMATION

This exam was developed to enable schools to award credit to students for knowledge equivalent to that learned by students taking the course. This exam tests the ability to understand hardware, software licensing and development tools; development life cycles; data management; connectivity, privacy concerns; intellectual property; network etiquette; telecommunications law; artificial intelligence, and globalization.

The exam contains 100 questions to be answered in 2 hours.

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.

## EXAM 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.

### 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

Below is a list of reference publications that were either used as a reference to create the exam, or were used as textbooks in college courses of the same or similar title at the time the test was developed. You may reference either the current edition of these titles **or** textbooks currently used at a local college or university for the same class title. It is recommended that you reference **more than one textbook** on the topics outlined in this fact sheet.

You should **begin by checking textbook content against the content outline** provided **before** selecting textbooks that cover the test content from which to study.

Sources for study material are suggested but not limited to the following:

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](http://www.course.com). 2
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](http://books.mcgraw-hill.com).

## SAMPLE QUESTIONS

All test questions are in a multiple-choice format, with one correct answer and three incorrect options. These are samples of the types of questions that may appear

on the exam. Other sample questions can be found in the form of practice exams by visiting our website at [www.getcollegedcredit.com/testprep](http://www.getcollegedcredit.com/testprep).

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

## CREDIT RECOMMENDATIONS

The American Council on Education's College Credit Recommendation Service (ACE CREDIT) has evaluated the DSST test development process and content of this exam. It has made the following recommendations:

<b>Area or Course Equivalent</b>	Introduction to Computing
<b>Level</b>	Lower-level baccalaureate
<b>Amount of Credit</b>	Three (3) semester hours
<b>Minimum Score</b>	400
<b>Source</b>	American Council on Education – College Credit Recommendation Service

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