

CSE 3 Final Exam

The final exam will be like the midterm, but will be about twice as long.
It will cover all the material in the class, not just the material since the midterm.

The following pages contain some sample questions. They are samples of the kinds of questions to expect, not a sample of the size of the exam.

Many of the sample questions are from the midterm. The final may not have so many questions that come directly from the midterm.

Time and Place

Thursday, March 20th 3 - 5:59pm, Peter 110

Closed book,

You may bring one file card with notes of the same size as was allowed for the midterm.

You Must Have a Picture ID to Take the Final

You must have either a UCSD student ID with picture, a valid driver's license with picture, or other ID approved by the instructor at least 48 hours before the exam.

Multiple Choice

Circle the correct answer. Graded as follows: Correct 3 points; no answer, incorrect answer (or more than one answer) 0 point. No negative points. Answer with the ONE BEST answer. Do not mark more than one answer for a question.

1. A digital computer
 - a. typically stores data as zeros and one.
 - b. typically runs on electricity.
 - c. seldom is colored magenta.
 - >>d. all of the above.
 - e. none of the above.

2. You can think of an old fashioned wooden ruler (for measuring lengths) as a computer. If you do so,
 - a. it is a digital computer
 - >>b it is an analog computer
 - c. it is a digital computer only if it uses the metric system
 - d. all of the above.
 - e. none of the above.

3. A nanosecond is
 - >>a. one billionth of a second.
 - b one billion seconds
 - c. is not a unit of time.
 - d. all of the above.
 - e. none of the above.

4. Which of the following is the color system used by computer monitors.
 - a. jpeg/gif/tiff
 - >>b. red/green/blue
 - c. cyan/magenta/yellow/black
 - d. none of the above.

5. In HTML the commands <H2> and <h2>
 - >>a. always mean the same thing
 - b. never mean the same thing
 - c. may or may not mean the same thing depending on what browser is used.t
 - d. none of the above

6. Which of the following is an HTML command to insert a horizontal line in an HTML document?

- >>a. <HR>
- b.<HL>
- c. <LINE> </LINE>
- d. none of the above

7. An IP address is

- a. the address of a site on the Internet.
- b. numbers separated by dots (periods).
- c. serves as a name for your computer when e-mail is sent to your computer.
- >>d. all of the above.
- e. none of the above.

8. A file with HTML code for a web page

- a. is a text file.
- b. should end in .html (or .htm).
- c. can be changed using a text editor.
- >>d. all of the above.
- e. none of the above.

9. A high bandwidth connection

- >>a. can transmit more data per second than a low bandwidth connection.
- b. can transmit less data per second than a low bandwidth connection.
- c. is a connection that goes through a satellite link.
- d. is a connection that uses a telephone line.
- e. none of the above

10. In an internet community, an avatar is

- a. an operating system.
- b. a kind of monitor.
- >>c. an animated character that represents some person.
- d. is a cartoon to keep you amused while your computer searches for data.
- e. none of the above

11. A word processor

- a. is the same thing as a text processor.
- >>b. typically stores fonts and other stuff as well as text.
- c. is a piece of hardware.
- d. all of the above,.
- e. none of the above

12. A file

- a. has a name.
- b. stores data.
- c. has a size measured in bytes.
- >>d. all of the above,.
- e. none of the above

13. An email message sent over the Internet

- a. might be shipped as lot of small pieces of data.
- b. can potentially take different routes from its source to its destination.
- c. almost always gets to its destination faster than a regular post office type of letter.
- >>d. all of the above,.
- e. none of the above

14. Most Internet search engines (such as Google or Yahoo)

- a. accept advertising.
- b. base their searches on keywords.
- c. have two main components called a *crawler* and a *query processor*.
- >>d. all of the above,.
- e. none of the above

15. Roger is a utility here at UCSD. It is

- a. a mascot for sports games.
- b. a meta search engine that is used to search the Internet.
- >>c. an electronic library catalog.
- d. all of the above,.
- e. none of the above

16. Redundancy in a data base can be bad because

- a. It wastes storage, although this is not a major consideration.
- b. It can lead to inconsistencies.
- >>c. all of the above
- d. It is not bad at all, it's very good.

17. A data base entity is

- a. a column heading.
- >>b. a row of a table
- c. a column of a table
- d. a person's name
- e. none of the above

18. A primary key in a data base table is

- a. a field (column) that uniquely identifies each row.
- b. is often a record number, like a student number.
- c. could be a person's name provided no two people have the same name.
- >>d. all of the above,.
- e. none of the above

19. A table (in a data base) is

- >>a. something with rows and columns.
- b. consists entirely of numbers.
- c. is the same thing as an entity.
- d. all of the above,.
- e. none of the above

20. A column of a table (in a data base) is called

- a. an attribute.
- b. a field.
- >>c. all of the above,.
- d. none of the above

21. An assignment statement

- a. is a very direct way to change the value of a variable.
- b. in JavaScript is written using an equals sign (among other things).
- c. always involves a variable.
- >>d. all of the above.
- e. none of the above

22. in JavaScript which of the following are used to test for equality?

- a. =
- >>b.==
- c. ~
- d. all of the above,.
- e. none of the above

23. Which of the following are good guides to the credibility of a website?

- a.who owns the website.
- b.how current the website is.
- c.how well presented the website is. (is it pleasing, does it look professional, etc.)
- d. all of the above,
- >>e. exactly two of the above.
- f. none of the above

24. Which of the following are means of input on a (JavaScript) webpage?

- a. a button.
- b a text field.
- c.an alert window
- d. all of the above,
- >>e. exactly two of the above.
- f. none of the above

25. On a webpage forms are often used for

- a.input.
- b.part of what makes a webpage dynamic
- c.something that invokes (calls) a function
- >>d. all of the above,
- e. exactly two of the above.
- f. none of the above

26. A function is

- a.the same thing as a query.
- b.the same thing as a form.
- >>c.like a small program that has been given a name.
- d. all of the above,
- e. none of the above

Short Answer Questions: Although each question has lots of room for an answer, the answers are all short and do not need all that much room. If one of your answers is more than about 5 lines it is probably too long.

27. Suppose you have two pictures of the same thing, one with high resolution, the other with somewhat lower resolution. You want to display the picture on your website. Explain why you might want to use the picture with the lower resolution rather than the one with the higher resolution.

ANSWER: (10 pts)

A lower resolution photo uses less data and so can be send over the internet more quickly

28. Give three or more considerations that you might use to judge the credibility of a website.

ANSWER: (10 pts)

Who owns the website

is it .com or .edu

how current is that date of the site

lots of possibilities

29. The following is the Windows path name for a file named readme.txt

C:\courses\winter03\cse3\readme.txt

What kind of thing is each of the following C, winter03, and cse3? Are they files, disk drives, or something else (if so what else?) They do not have to all be the same kind of things.

ANSWER: (10 pts)

C is a disk drive

winter03 and cse3 are folders (or directories).

30. Give the HTML code for a page that has your name as the main title when viewed on a browser, a message saying this site is under construction and, an address section with your email address and today's date on two different lines. Your code should also have a short title; the title does not get displayed.

ANSWER (15 pts)

```
<HTML>
<HEAD>
<TITLE>
Some Title
</TITLE>
</HEAD>
```

```
<BODY>
<H1>
Walt Savitch
</H1>
```

This site is under construction.

```
<ADDRESS>
wsavitch@ucsd.edu
<BR>
February 6, 2003
</ADDRESS>
</HTML>
```

31. In a search engine, such as Google, what is the job of the crawler?

ANSWER (10 pts)

The crawler roams the Internet collecting information about websites.

32. Write a JavaScript function definition for a function named `doubleFun` which when invoked as follows will display an alert window with the message "Hello Hello"

```
doubleFun("Hello");
```

When invoked as follows will display an alert window with the message "Bye Bye"

```
doubleFun("Bye");
```

Do not give an entire HTML page, just the function definition and JavaScript beginning and ending HTML commands, To help clarify what is wanted, we have given you part of the first line of your answer.

Do not forget to put the space between the two words in the alert window.

ANSWER (15 pts)

<SCRIPT LANGUAGE=

ANSWER:

```
<SCRIPT LANGUAGE="JavaScript">
function doubleFun(message)
{
    alert(message + " " + message);
}
</SCRIPT>
```

33. What do cookies do that is good for you when using a web browser?

ANSWER (15 pts)

When you are using an interactive webpage, such as ordering from a catalogue, the company's server interacts with many customers at once. It does this by rapidly jumping from one customer to another. In order to know where it left off with a customer, it leaves a cookie on the customer's computer to tell it where it left off when it went to service another customer.

34. What are some things that computers cannot do? Will they ever be capable of doing these things? Why are computers incapable of doing these things. Do not write more than what will fit on one side of this page. Conciseness will be one of the grading criteria. You need not be exhaustive. You may pick just some of the things computers cannot do. Even one thing might be enough if you do a good job in making your answer clear and convincing.

ANSWER (15 pts)

This is an open ended question. There is no unique answer.