

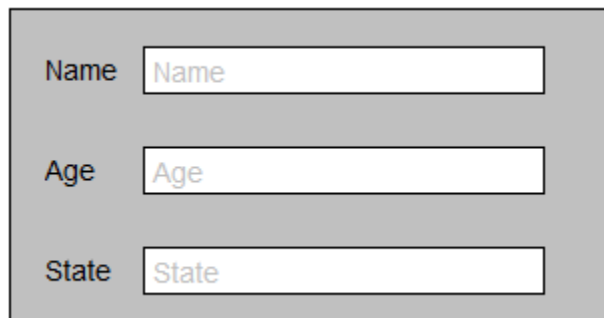
Practice questions/problems for Exam 2

Remember, Exam 2 will be comprehensive. While the bulk of the questions will be from recent topics (like those in this worksheet), it will also include questions from the first five weeks of the semester.

1. Consider the following predicate: $(a \wedge b) \vee C \wedge p(x)$

Show how to derive values for a , b , and $p(x)$ that will allow C to determine the value of the predicate.

2. What are the three parts of an HTTP request initial line?
3. What are the three parts of an HTTP response initial line?
4. Assume someone fills in the form below with the values Tom, 15, and Iowa, and *POSTs* it to “myserver.com/register”. Ignoring headers (but not the initial line), what will the HTTP post message look like?



The form is a rectangular box with a light gray background. It contains three rows of input fields. Each row has a label on the left and a text input field on the right. The labels are 'Name', 'Age', and 'State'. The input fields contain the placeholder text 'Name', 'Age', and 'State' respectively.

5. Assume the java variable Books.count is defined for a given JSP page. Show how to insert the current value of count in the following line of HTML: (that is, fill in the blank in the following)

`<H1>Current book count is: _____</H2>`
6. What coverage criteria does MC/DC subsume?
7. Give two differences between an HTML POST request and an HTML GET request.
8. Give the three rules of TDD.

9. If the SUT has three inputs a,b, and c partitioned into 3, 5, and 7 equivalence classes (blocks) respectively, how many test cases will be required to satisfy a base choice coverage criteria?
10. What are the top level phases of the planning process according to ISTQB?
11. Name three subjects that should be addressed in a test plan.
12. What information should appear in a defect report.
13. Why is it important to maintain traceability links between requirements, tests, and code?
14. What is curl?
15. What method must you override in `HttpServletRequest` to create a handler for POST requests?
16. Write the java to retrieve the page “homeserver.com/exam/answer.txt” using `HttpClient` (fluent style).
17. Given the interface:

```
public interface MissingClass {  
    public boolean isMatch(String data);  
}
```

Use mockito to create an object which stubs `isMatch()` and returns true when `isMatch` is called with “Special”.

18. What purpose do TCP/IP ports serve?
19. By default, what port is associated with HTTP servers?
20. What outcome do HTTP status codes in the 400 block (400 – 499) indicate?
21. What is a context root?
22. What are the four parts of a URL?
23. Give the url-encoded representation for “Joe Smith”.

24. What is a scriptlet
25. Give three reasons web-servers are difficult to test.
26. Why don't we rely exclusively on code coverage tools like EMMA to drive the creation of test sets?
27. Name three coverage criteria based on logic structure.
28. Why is combinatorial testing potentially beneficial in designing test sets for applications with a large number of inputs?