# Aptitude test for testers

Version 1.1

## Introduction

The tester's aptitude test has been compiled to assist the test manager/team leader in the recruiting of good quality testers. This test should be used in conjunction with other interviewing techniques.

## Structure

The test comprises of 25 questions, each carrying different marks. The questions have been designed to test a broad knowledge of testing from scenario testing to specific questions on testing tools.

## Marking

The test should be completed in 1.5hours. However if it takes the candidates longer then penalty points can be deducted (1 point for every extra minute for example). If the candidates take less time then they can be awarded extra points.

The total number of points given from the test is 150 – this can be translated into a percentage and you might want to consider having a sliding scale for the potential testers:

- Score less than 50% - **Fail**
- Score 50% to 65% - **Trainee Tester**
- Score 65% to 80% - **Tester**
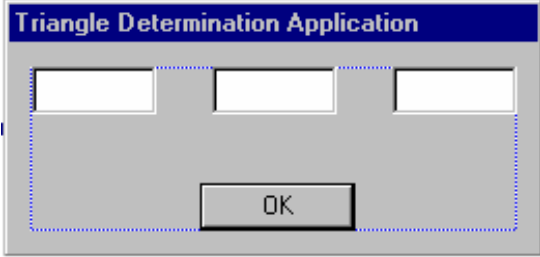- Score more than 80% - **Senior Tester**

## Acknowledgements

The first draft of the Aptitude Test was issued in June 2001. The following people were kind enough to suggest alternative questions and comment on the content.

Appreciation for the first version goes to:
Dave Norman, Tim Edmonds, Richard Durham, Barbara Eastman, Kris Pears, Steve Walker and Christine Hunt.

# Tester's Aptitude/Knowledge Test

| No. | Question | Score |
|---|---|---|
| 1. | What statement do you consider to be most important and why?<br>  a) Testing has the primary intent of showing the system meets the users needs.<br>  b) Testing has the primary intent of finding faults | **2** |
| 2. | You have run all your tests and they all pass. Is this good news or bad news? | **2** |
| 3. | What would you do if you were asked to test a system which is unfamiliar to you has out-of-date or inadequate documentation? | **4** |
| 4. | In running a test you find the actual result does not match the expected result – what would you do? | **3** |
| 5. | Do you consider positive or negative testing to be most important or trying to break the system - and why? | **2** |
| 6. | How would you define a good test? | **2** |
| 7. | You have been assigned to test the new Triangle Determination Application (see screen shot below).<br><br>**Triangle Determination Application**<br><br>[OK]<br><br>As you can see the screen consists of three text fields and a single button.  The user is expected to enter an integer value into each of the three text fields.  Upon hitting the OK button the program will print a message in a separate dialog box stating whether the triangle is scalene (all sides are different lengths), isosceles (two sides are the same length), or equilateral (all three sides are the same length).<br><br>Write a set of test cases (i.e. specific sets of data) that you feel would adequately test this program.  Write the tests so that someone other than you can run them. | **17** |

| No. | Question | Score |
|---|---|---|
| 8. | In testing the above application you identify what you believe to be a fault – instead of printing the message concerning the type of triangle in a separate dialog box the application is printing the message in the space between the 3 text fields and the OK button.  What should your next step be (answer and state why)?<br><br>a)  Continue testing to the end of the script, and then report the bug.<br>b)  Stop testing, report the bug immediately, then continue alternative scripts<br>c)  Stop testing, report the bug and await a fix.<br>d)  Continue testing and report the bug later, along with those found in other scripts | 3 |
| 9. | You have raised a fault, but Development are unable to reproduce it. What should your next step be?  (Give answer and state why)<br><br>a)  Let development sign off the bug as not reproducible.<br>b)  Sign off the bug yourself as not reproducible.<br>c)  Tell development the bug definitely exists and you will not pass it unless fixed.<br>d)  Re-test and upon confirmation provide more detailed information to Development, talking them through each stage if necessary. | 3 |
| 10. | **Scenario:**<br>You have two sets of tests to run on the new version of the software.<br>**Test Set 1:** a test set to provide confidence that software has not regressed from the previous version.<br>**Test Set 2:** a detailed test set to investigate potential faults in the new release of software.<br>Having run test set 1 you discover a number of faults in the new version of software – what do you do? | 6 |
| 11. | Draw and explain the 'V' Model and how testing fits into the Development Lifecycle. Indicate on the model where you would design your tests. | 6 |
| 12. | Describe the stages of testing and what the objectives are at each stage. | 10 |
| 13. | Explain what you understand by the terms:<br>Regression Testing and Re-Testing | 4 |
| 14. | **Scenario:**<br>You have planned to run 600 tests on your own. Each test will take approximately 10 minutes to run. Your manager has told you that you must complete these tests within one week. What would you do? | 5 |

| No. | Question | Score |
|---|---|---|
| 15. | Do you consider testing tools to be valuable during the testing process – why/why not? | **4** |
| 16. | List 3 test tool categories and describe what each can do. | **9** |
| 17. | Name 2 standards that refer to testing | **2** |
| 18. | How would you test these requirements:<br>   a) The system must be user-friendly<br><br>   b) The system must be easy to install<br><br>   c) The following response times are to be achieved with the new system:<br>     • Initial loading of the web application must be achieved within 3 seconds<br>     • Updating of the information on the web page must be no more than 5 seconds | **9** |
| 19. | Why do you consider testing to be necessary? | **4** |
| 20. | A hotel telephone system can perform 3 functions:<br>   • Call another hotel room by entering a room number (201 to 500)<br>   • Call an external line by entering a 9, followed by the number<br>   • Call various hotel services<br>     • 0 = Operator<br>     • 7 = Room Service<br>     • 8 = Reception<br><br>Write a set of test cases to adequately test this telephone system | **15** |
| 21. | Describe what you understand about the term "Static Testing" and list 3 static testing techniques. | **4** |
| 22. | How would you prioritise your tests (list 5)? | **10** |

| No. | Question | Score |
| --- | --- | --- |
| 23. | **Scenario:**<br><br>You are testing 2 programs and have 3 weeks to test them both. Having run all of your tests on both programs you finish testing within 2 weeks. You need to decide which of the 2 programs you would re-visit and run further tests against. Choose which program you would re-test (can choose only one!) – and state you reasons:<br><br>**Program A**<br>Programmer:  A<br>Complexity Level: 2<br>Lines of Code: 2000<br>Number of tests: 100<br>Number of bugs found: 10<br>(1 high severity, 3 medium & 6 low)<br><br>**Program B**<br>Programmer:  B<br>Complexity Level: 2<br>Lines of Code: 2000<br>Number of tests: 100<br>Number of bugs found: 50<br>(10 high severity, 25 medium & 15 low) | **4** |
| 24. | An ATM has been specified to work in the following way:<br><br>Enter a card and if the card is invalid reject the card and exit system. If it is a valid card then enter a PIN number. Check to see if the PIN is invalid – if it is then display a message *'invalid pin number, please re-enter'*. If 3 attempts are made with an invalid pin then the machine keeps the card. If it is a valid PIN then the user can select one of the following transactions:<br><ul><li>Cash Withdrawal without receipt</li><li>Cash Withdrawal with receipt</li><li>Balance Enquiry</li><li>Statement request</li><li>Cancel</li></ul>What tests would you produce to test this application? State any assumptions when testing | **10** |

| No. | Question | Score |
|---|---|---|
| 25. | The following is an extract from a fault log, write down any potential problems or omissions with this: | **10** |

**Fault Log**

**Fault No:** 27822       **Environment:** Windows 98

**Priority:** 3              **Author:** A Tester

**Application:** Web System

**Description:**
When I log on to the screen DF342 I should be able to delete records. However when trying to delete records an error message appears telling me that I am not authorised.

**Response:**
25 Aug: Programmer - Security needs to be set up allowing you access to the delete facility – No error.

26 Aug: Tester – We had set security up and it doesn't appear to work – I have re-opened this fault!