# Sample Exam
# Foundation Level

# Mobile Tester

September 2015

American Software Testing Qualifications Board



ASTQB™

AMERICAN SOFTWARE TESTING QUALIFICATIONS BOARD

1. What types of testing are particularly important for mobile applications based on the user's expectations?
   a. Suitability and Accuracy
   b. Usability and Performance
   c. Portability and Usability
   d. Performance and Security

2. If an application resides on the mobile device and was written specifically for that device, what type of application is it?
   a. Web-based
   b. Hybrid
   c. Native
   d. Device-specific

3. You are testing an application for a smart phone. You have determined that you only need to test one device from the target family of devices because the behavior of all devices in that family will be the same for this application. This is an example of what test design technique?
   a. Boundary value analysis
   b. Combinatorial
   c. Decision tables
   d. Equivalence partitioning

4. If you are testing a mobile application that is not safety-critical, which lifecycle model is most likely to be used?
   a. V-model
   b. Waterfall
   c. Mobile model
   d. Iterative

5. Which of the following requirements documents would be the best source to determine normal usage scenarios?
   a. Requirements specification
   b. Use cases
   c. User stories
   d. Usability requirements

6. In a project that is feature-rich but time-poor, which is the most reasonable approach to risk analysis?
   a. Conduct a full risk analysis, including weighted likelihood and impact ratings for each item
   b. Use a lightweight approach and assign relative importance of each identified item
   c. Skip the risk analysis step and proceed to test execution based on experience
   d. Concentrate on the functional capabilities and disregard the physical capabilities of the device since those should be tested by the manufacturer

7. If you are testing a mobile banking application, is it important to test the interaction between the software and the device?
   a. No, it is not necessary to extend the functional testing to cover interaction with the device
   b. Yes, using the physical device is how the user interacts with the application and how the application interacts with the Internet

c. No, if the application is developed as a native application, there is no need to test the interaction because the application is portable across many different types of devices

d. Yes, each feature of the device should be tested to verify if it interacts with the application

8. You are testing a native application for a smart phone. The application allows the user to make grocery lists on the phone and store up to three lists at a time. A list can contain up to 50 items. Which of the following is the minimum set of test conditions to achieve 100% coverage with the equivalence partitioning test technique?

a. List with 47 items

b. List with 0 items, List with 1 item, List with 50 items, List with 51 items, 0 lists saved, 1 list saved, 3 lists saved, 4 lists saved

c. List with 0 items, List with 25 items, List with 51 items, 3 lists saved

d. List with 0 items, List with 12 items, List with 58 items, 0 lists saved, 3 lists saved, 7 lists saved

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b. List with 0 items, List with 1 item, List with 50 items, List with 51 items, 0 lists saved, 1 list saved, 3 lists saved, 4 lists saved

c. List with 0 items, List with 25 items, List with 51 items, 3 lists saved

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10. Correctness can be defined as a combination of which two quality characteristics?

a. Suitability and accuracy

b. Usability and performance

c. Portability and interoperability

d. Security and usability

11. When conducting security testing on a mobile application, which is the correct set of basic areas to cover?

a. Access, data protection, documentation

b. Code, functionality, documentation, security policy

c. Data creation, data storage, data transfer

d. Access, data storage, data transfer, security policy

12. Which of the following types of testing might consider the user's age?

a. Scenario-based testing

b. Use case testing

c. User story testing

d. Persona-based testing

13. If your application can only be used within a specific country, what feature of the device might be used to supply information that the application can use to make this determination?

a. Geolocation

b. Telephony

c. Magnetometer

d. Altimeter

14. What is the primary use of teststorming?

a. Load and stress testing from multiple locations

    b.   Testing the device's ability to deal with weather conditions
    c.   Deriving test cases and test scenarios
    d.   Creating masses of test data

15. You have information from production that the previous version of your product has had a high rate of abandonment after the initial download.  In fact, it appears people download the application and never use it.  Poor performance is thought to be the main problem that is causing people to give up the application.  Which of the following aspects of the application should be specifically targeted for testing to help determine if this is really the problem?
    a.   User interface delays
    b.   Irregular performance
    c.   Resource usage
    d.   Application launch time

16. Your company has created an application for doing crossword puzzles.  The target users are in the age class of over 65 years old.  There has already been considerable concentration on creating screens that are easy to navigate and intuitive.  It is a primary goal that the software be easy to use.  Viewability has been implemented with a revolutionary magnification ability based on moving a magnifying glass across the screen.  The beta testers have still had problems using the application, particularly when trying to enter the letters into the squares.  Given this information, which area should you target for more complete testing?
    a.   Simplicity
    b.   Layout
    c.   Intuitiveness
    d.   Navigation

17. You are planning to conduct performance testing on a new application.  You have been given a set of personas to use during this testing.  How should you apply the personas in the performance testing approach?
    a.   Personas should be duplicated by the automated tools to create virtual users who can create a realistic load on the system.
    b.   Personas should be reviewed to understand the individual tasks being performed.  These tasks can then be scripted and performed in sets.
    c.   Personas are used primarily for usability testing and should not be used as guidelines for performance testing.
    d.   Personas should be used to derive use cases which can be broken down into user stories and then scripted into performance test scripts.

18. If you are testing how much battery is being used by your application, what are you testing?
    a.   Task completion
    b.   Delays
    c.   User interface delays
    d.   Resource usage

19. You have been doing your mobile application performance testing on a simulator.  Why would you need to do some testing on a real device?
    a.   Because a simulator is not an exact replica of the real device and may give different performance results
    b.   Because it is not possible to thoroughly test a simulator to ensure it is working correctly
    c.   Because simulators cannot be cloned to provide enough devices to generate a realistic load
    d.   Because simulators cannot run concurrent applications

20. Which of the following is a requirement for portability testing for the future of a mobile application?
    a. Knowing how the application works today with today's devices
    b. Anticipating which devices will be popular and how they will be used
    c. Predicting how personas will change
    d. Creating new devices via emulators and testing the application on those emulators

21. For a navigation application on a smart phone, which is the most importance device capability?
    a. Telephony
    b. Camera
    c. Email
    d. Geolocation

22. If a tool is able to simulate the way in which a specific device would respond to an application, it is considered to be what type of simulator?
    a. A hybrid simulator
    b. A native device simulator
    c. A web-based application simulator
    d. A browser-based application simulator

23. Which of the following is a generic tool that would be useful for a mobile application testing project?
    a. A simulator
    b. An emulator
    c. A defect tracking system
    d. A performance testing tool

24. In what way might a mobile device itself supply data to the mobile application?
    a. By providing location information by using its geolocation capability
    b. By gathering input from the user
    c. By communicating with a backend system
    d. By connecting to another device

25. Which of the following is true about a browser-based application?
    a. It is designed to exercise capabilities of a particular device
    b. It runs on the device
    c. It is portable to any device that can run the supported browser
    d. It is generally faster than a native application

26. Which of the following is a reason to use simulators for testing?
    a. Simulators give more accurate performance than real devices
    b. Real devices can be difficult and expensive to procure in large quantities
    c. Simulators can interact with users to provide feedback on usability
    d. Real devices can be quickly configured to provide new testing scenarios

27. You have just been assigned to test a native mobile application for a delivery recording device used by mail and package couriers. This is a new version of a product that is already in production. The production version of the product has had issues with the hardware particularly with capturing signatures entered on the device and with associating photo images to the proper delivery addresses. This has resulted in a problem with reconciling the package delivery information. You need to test the application on a network with 1000 of these devices sending information back to the main office. Budget is limited as is the ability to obtain 1000 devices. What should you do?

a. Find or develop a simulator that can simulate the network interaction of many devices
b. Find or develop an emulator that can emulate the application running on the hardware and OS of the device
c. Implement crowd-source testing to get a large number of people to use their own devices to test the network
d. Obtain the real devices because any other testing will not be representative of the real behavior of the device

28. You are responsible for performance testing for a new hybrid mobile application that will run on smartphones.  The application will use the phone's GPS capability to determine the altitude of the phone.  This information will be used to send information to the user indicating the change in their "safe limit" for alcohol consumption.  You expect your highest usage of the system to be on New Years Eve when many people are skiing at high altitudes and will need to check their safe limit.  For the first year of usage, 5,000 concurrent users are expected to use the application on that one evening.  Given this information, what is the best approach to use for conducting the performance test?
    a. Clone simulators to create 5000 users and conduct the test with those simulators
    b. Clone emulators to create 5000 users and conduct the test using the emulators
    c. Use a mix of simulators and emulators to give the most realistic results
    d. Use crowd-sourcing and real users to get accurate results from real devices

29. You have a need to test network connectivity in a variety of environments to determine if your web site will respond fast enough and reliably enough to the requests from your mobile web-based application.  You don't have the ability to create these environments within your test facilities.  What is the best option to use to conduct this testing?
    a. Find or develop a simulator that can simulate the network interaction of many devices on varied networks
    b. Find or develop an emulator that can emulate the network interaction of many devices on varied networks
    c. Find a cloud-based network simulator that can generate network traffic from a variety of different networks
    d. Implement crowd-source testing to get a large number of people to use their own devices to connect via various networks

30. What is the best way to verify that a simulator is giving reliable results?
    a. Read the requirements
    b. Test the simulator
    c. Compare the results to the results from a real device
    d. Compare the results from the simulator to the results from an emulator

31. Which cloud capability is most beneficial for performance testing?
    a. Supporting a variety of network types
    b. Supporting a variety of protocols
    c. Supporting a variety of device types
    d. Supporting a variety of device quantities and usages

32. Which of the following is a type of data that a mobile performance testing tool should be able to monitor, track and generate?
    a. Bursts of activity
    b. Usability information
    c. Navigation flow data
    d. Secure data transactions

33. You are testing an application that will allow users to scan the barcode from a package mailing label and then receive emails from the package shipper as the package moves through the various stages of its delivery (e.g., pickup, receipt at central processing, routing, delivery). If requested, the user can also receive a picture of the signature of the recipient of the package. This is a web browser-based application. It is expected that this application will have wide usage across a large set of devices and networks with varying speeds and reliability.

Your company has several competitors who are working on similar products although your company's product has some new innovations and a very attractive user interface. As a result, once it is released, your company expects to grab that majority market share.

Given this information, what would be the best approach for doing your testing to ensure the capabilities of the product are tested as well as the range of environments and networks?

    a. Use a remote device lab that is provided by a device manufacturer to ensure your application works across the whole family of devices
    b. Use crowd sourcing to get the widest distribution of device locations and types with minimal cost
    c. Use a set of simulators that can simulate the various capabilities of a wide variety of devices
    d. Use a cloud-based virtual test environment to simulate various devices and networks

34. You are testing an application that will allow users to scan the barcode from a package mailing label and then receive emails from the package shipper as the package moves through the various stages of its delivery (e.g., pickup, receipt at central processing, routing, delivery). If requested, the user can also receive a picture of the signature of the recipient of the package.

This is the second version of this application. The first version was web browser-based and was quite slow to start up. The new version is a native application with all the same functionality. It is expected that this application will have wide usage across a large set of networks with varying speeds and reliability.

Given this information, what would be the best approach for doing your testing to ensure the capabilities of the product are tested as well as the range of devices, environments and networks?

    a. Use a remote device lab that is provided by a device manufacturer to ensure your application works across the whole family of devices
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35. In the future, what is the expectation for device capabilities?
    a. They will decrease as devices get smaller
    b. They will increase as demand increases
    c. They will stay the same
    d. They will stay about the same but expand across a greater range of devices

36. What will the future user expect in terms of application performance?

a. They will expect it to be slower because they will understand that adding more features will necessarily compromise the speed of existing features
b. They will expect it to be slower because devices will become smaller
c. They will expect it to stay constant
d. They will expect it to continue to increase

37. When building a flexible testing framework, how does the short product lifecycle affect the test approach and tool decisions?
    a. The framework must support long-term maintainability
    b. The framework should utilize stable and reliable tools from known vendors
    c. The framework must provide a good ROI
    d. The framework should leverage a formal risk analysis

38. Your organization has just hired a test automation architect who has previously worked on medical software with strict regulatory requirements. His test automation framework is very solid and will allow the staff to build maintainable data-driven test cases. His tool choice is the top of the line tool that has been used for many years for traditional test automation. You are concerned that this is a very expensive tool and may not have the flexibility needed in your environment, particularly since the mobile applications your company develops are intended to exist in the market for only six months before being re-worked to add new features and change the user interface. The software development lifecycle is iterative and the team uses continuous integration to provide testable software faster. Given this information, what should you recommended for the test approach?

    a. Search for other tools that are more suited for the mobile environment and consider creating test automation with keyword-driven tests rather than data-driven.
    b. Go with the proven framework and seek high coverage in the test automation software to ensure good reuse.
    c. Bypass test automation and go with crowd-sourcing to get a high amount of testing done in a short period of time. Test repeatability is not an issue with this software.
    d. Use test automation for performance testing and conduct the functional testing manually since the product has a short life expectancy.

39. As lifecycle models adapt to meet the needs of the mobile application market, how will the interaction between the developers and testers change?
    a. The interaction will become more formal
    b. Detailed requirements documentation will replace stand up meetings
    c. Developers and testers will return to more traditional, separate roles
    d. Collaboration between developers and testers will increase

40. What type of testing methodologies should mobile applications testers seek?
    a. Leaner and more efficient
    b. Faster and more reliable
    c. Secure and more usable
    d. Documented and more repeatable