

This Free E-Book is brought to you by [Natural-Aging.com](http://Natural-Aging.com).

**100% Effective Natural Hormone Treatment**  
**Menopause, Andropause And Other Hormone Imbalances**  
**Impair Healthy Healing In People Over The Age Of 30!**

**All about the new SCMAD Certification Exam**

**By Whizlabs Software**

**All about the new SCMAD Certification Exam by Whizlabs Software**

**Summary:**

The mobile market is envisioned as the next technological wave by leading industry experts. But due to fragmented nature of the mobile market, with various manufacturers competing to get their share of the pie, Java is once again poised to be the best programming language for the mobile market with its Write Once, Run Anywhere technology. This article will help you understand the objectives, preparation requirements, and resources available for this prestigious certification by Sun Microsystems.

**Introduction**

The mobile market is envisioned as the next technological wave by leading industry experts. With approximately 150 million mobile phones – roughly 3 times the user base as that of desktop computers – it might well be the case. Due to the fragmented nature of the mobile market, with various manufacturers competing to get their share of the pie, Java is once again poised to be the best programming language for the mobile market with its Write Once, Run Anywhere technology.

The specifications around the Java for Wireless Technology initiative have been proposed and backed by most of the leading mobile phone manufacturers (Nokia, Sony Ericsson, Siemens, T-Mobile, to name a few) and hence, one can expect device support and continued innovation.

The Java 2 Platform, Micro Edition (J2ME) offers a highly optimized virtual machine which can be used to run Java applications on devices ranging from resource constrained devices like smart cards, pagers, and mobile phones to high end devices like handheld computers and set-top boxes.

Keeping the limitations of the mobile devices – both in size and in memory – in mind, the Java Community Process has developed a series of standards constructed in a modular fashion to ensure that various features are standardized while keeping the architecture at an abstract level.

## All about the new SCMAD Certification Exam

While the J2ME itself includes a lot of other features and is also not limited to mobile phones, the certification concentrates on the developer's ability to create and install programs for mobile devices, such as cell phones and Personal Digital Assistants (PDAs).

You might want to consider taking this exam

- If you are already into writing J2ME applications for mobile devices and want to be recognized for your skills.
- If you are a developer who has already written a few programs for wireless devices, the preparation will give you in–depth knowledge of various concepts.
- If you are a seasoned J2SE/J2EE developer and want to start writing highly optimized Java applications for mobile devices, this certification is a jump–start for achieving the same.
- If you do not have too much of an idea about technologies like Wireless Programming or Game

Programming, preparing for this certification will be a great incentive to get a foothold in this technology.

- If you want to learn and master the cutting–edge technologies that are round the corner.

This article will provide a basic understanding of the scope of the certification and will also give details about the certification along with the useful resources to get started.

What you need to know?

The Sun Certified Mobile Application Developer (SCMAD) tests the developer's knowledge in the following five specifications.

- Java Technology for the Wireless Industry (JTWI 1.0)JSR–185
- Connected, Limited, Device Configuration (CLDC 1.0/1.1)JSR–030/JSR–139
- Mobile Information Device Profile (MIDP 2.0)JSR–118
- Wireless Messaging API (WMA 1.1)JSR–120
- Mobile Media API (MMAPI 1.1)JSR–135

Exam Information

Prerequisites

You should have passed the Sun Certified Java Programmer (SCJP) – any version – to appear for this exam.

Objectives

Details of the certification objectives can be found at the Sun website. The major objectives are

- 1.JTWI (JSR 185) and Overview / JTWI–compliant Wireless Applications
- 2.CLDC 1.0/1.1

- 3.Security (both CLDC and MIDP)
- 4.Networking
- 5.Application Model/ Delivery/Lifecycle/Provisioning
- 6.MIDP Persistent Storage
- 7.Push Registry
- 8.MIDP UI API
- 9.MIDP Game API
- 10.Media using MIDP 2.0 and the Mobile Media API 1.1 (MMAPI)
- 11.Wireless Messaging API 1.1 (WMA)

#### Passing Score & Time

The exam consists of 68 questions, and the pass percentage is 55%. The time allotted for the exam is 150 minutes. The fee for the exam is \$150 for U.S. candidates and might vary for other countries. Please visit the Sun certification website for more details.

#### What you need to do?

This exam might be slightly tougher than the other exams since the technology is fairly new and the community support is limited.

Since the API set is relatively small, you can cover the topics quickly. On an average, it should take you around a week to cover each topic if you are familiar with Java and have written or attempted to write a few programs using J2ME. If you are new to wireless programming, you might want to allocate around 2–3 months (2 hours a day at least) for preparation.

To prepare for the exam, it we recommend that you do the following:

- 1.Download the Java Wireless Toolkit (2.0 or above).
- 2.If you have a J2ME enabled cell phone, download the toolkit from that vendor. For example, Nokia and Sony provide free toolkits and emulators that will help you program in those devices.
- 3.Download the PDF versions of the specifications mentioned above.

The best way to get an idea about wireless programming is to actually write some programs and deploy them to a cell phone. This will go a long way in your preparation, since the creation and delivery of wireless applications is quite different from that of the standard or enterprise applications. You should develop at least one program for each specification to get a feel of the API. Some of the programs you might want to develop are

- 1.A program that takes a name and prints out "Hello " (tests the UI API)
- 2.A simple game or a drawing, like the traditional Paddleball game or various geometric shapes moving in the screen (tests the Game API)
- 3.A program to read an image off a website and display it on the phone (tests networking)
- 4.A signed' Hello World! Application (tests security)
- 5.A program that plays a simple tune (tests MMAPAPI)

## All about the new SCMAD Certification Exam

6. A program that displays a text message (tests WMA)

7. A program that calculates tip for various pre-defined scenarios (tests RMS)

To understand the concepts of J2ME programming, you can read the official J2ME tutorial, which is very comprehensive. Some useful books are also listed in the resources section.

Most of the questions will be code-based and hence, it is very important that you understand how the code is structured for various specifications.

You might want to consider purchasing the SCMAD exam simulator by Whizlabs, which contains numerous questions of varying difficulty levels spread across five mock exams and a quiz and also lots of useful tips for the exam.

Assuming that you have Whizlabs SCMAD Exam Simulator, {available at <http://www.whizlabs.com/articles/scmad-article.html>} you can use the table below as a starting point for developing your preparation timeline.

### Week Objective Notes

0 Diagnostic Exam Gives you a feel of what to expect

1 CLDC 1.0/1.1 Basics of the VM and its requirements

2 Application Lifecycle/Provisioning Basics of MIDP and its requirements

3-4 MIDP UI API Develop and deploy Program 1 after this

5 Networking Develop and deploy Program 3 after this

6 MIDP Persistent Storage Develop and deploy Program 7 after this

7-8 MIDP Game API Develop and deploy Program 2 after this

9 MMAPI Develop and deploy Program 5 after this

10 WMA Develop and deploy Program 6 after this

11 Push Registry Small, but complicated, and is related to WMA

11 Security Helps in packaging applications securely

12 JTWIG Gives an understanding of how the technologies are tied together

12 Mock Exams Test your preparation. Revise weaker sections.

Finally, you can take some mock exams to prepare yourself from a certification standpoint.

### Tips and pitfalls

- Understand the conceptual difference between a J2ME configuration (like CLDC) and a J2ME profile (like MIDP).
- Memorize the software and hardware requirements of the various specifications.
- Memorize the class hierarchies of important APIs like Generic Connection Framework, High level and low level UI API, Media classes of MIDP 2.0 and MMAPI 1.1.
- The exam tests the understanding of the features and differences between low level and high-level API for UI programming. So, learn them well.
- Understand that differences between the media support of MIDP 2.0 and the MMAPI 1.1.

## All about the new SCMAD Certification Exam

- Apart from the knowledge of writing proper J2ME code, the exam also tests the ability to write valid Java Application Descriptor (JAD) and manifest files that are used to markup the deployment details of an application. So, practice writing the descriptors well and deploy the application in the toolkit to understand the behavior of various deployment tags.
- Remember that the exam is a vendor neutral exam. So, you can safely ignore learning the vendor APIs (like the APIs provided by Nokia, Sony Ericsson, and so on).
- The best reading material for this exam is the specification document. So, allot enough time to go through these documents and learn the concepts and API well.
- Make sure what you read is relevant to the exam objectives. A common pitfall is reading and spending time on things that you may not require for the exam.
- As mentioned earlier, try to develop a practical example for each concept as this will help in a better understanding of the concepts.

### Conclusion

With a huge customer base and vast popularity, wireless devices are here to stay. As the wireless technology improves and as the next generation devices come into the market with increased bandwidth, the demand for interactive and feature-rich wireless applications will greatly increase. Having a know-how of wireless programming will give you a competitive edge and will prepare you for the future.

### Resources

- J2ME tutorial by Sun Microsystems, Inc.
- SCMAD.com provides a comprehensive list of preparatory resources for the certification exam.
- Exam notes by Sathya Srinivasan, to get you started on the certification

### Forums

- Whizlabs SCMAD Certification Forum
- SCMAD trail at JavaRanch (You might also want to visit the J2MEtrail)

### Books

- Wireless Java: Developing with J2ME by Jonathan Knudsen
- Wireless J2ME Platform Programming by Vartan Piroumian
- J2ME: The Complete Reference by James Keogh
- Enterprise J2ME: Developing Mobile Java Applications by Michael Juntao Yuan

### Exam Simulators

There are many ways to prepare for certification exams, one of them being through the use of exam simulators. With these you cannot just identify your weak areas, but also get a feel of the test environment.

Whizlabs has launched worlds' first-ever SCMAD (J2ME Certification) exam simulator {available at

<http://www.whizlabs.com/articles/scmad-article.html>} that ensures your success in the exam with its high-quality mock tests and quick revision tips for the exam.

\*First Published at Whizlabs' site.

Whizlabs ([www.whizlabs.com](http://www.whizlabs.com)), an ISO Certified company, is a leading provider of IT skill assessment and certification exam preparation tools. Whizlabs' suite of offerings include "IT Certification Exam simulators and Instructor-led, Online Trainings" for various exams by Sun, IBM, Oracle, Microsoft, and "IT skill Assessment Management Solution" for Corporations, Training Institutes. The author can be contacted at [authors@whizlabs.com](mailto:authors@whizlabs.com)

## **IT Certification Exams: 3 Most Popular Mistakes**

**By Divya Chopra**

Parallel to the growth of the IT Industry, the value and importance of IT certification exams has also gain significant momentum. More and more people are pursuing these exams and organizations are also encouraging their employees to take these certifications.

But one needs to be educated enough to make a proper choice whether to take the certification or not. And if you decide to take, then it is even more important to be clear of what it gives you and takes from you to be a certified professional. Below is a brief discussion about 3 most common mistakes, people make while deciding for these certification exams.

### **1. Are you expecting too much?**

People have lots of expectations about IT certification exams. Some of them are appropriate while many of them not. For e.g. if you believe that the certification itself 'will give you a job' then you are wrong. An IT certification exam like MCSE or CCNA, may 'help you get a job' but it alone can't give you a job.

Working professionals also expects huge raises on taking the certification exam. When they go to their boss or their organization, they get disappointed. A certification can definitely help you gain job stability or rise in career but don't expect too much. It also depends upon the organization you are working for.

### **2. I should take what others are appearing for**

Large number of people bases their decision of choosing the exam on what other people like friends and colleagues are taking. Also, many people take the decision based on which technology is hot.

Stop and think again. Is this the certification I really want to take it? Is this the one which is worth the effort for me? Your friend's decision may be based on his/her organizational requirements but it may not be appropriate for you. The technology popular in the global market may not be popular in your country or your location. So, make sure that you are clear of the objective of your taking the certification. Don't be in a hurry to make this very crucial decision.

### 3. Earning a certification costs very little

Majority of people grossly underestimate the effort required to earn a certification. They just add the cost of exam or the cost of training aids they plan to take. But they fail to estimate the cost of precious time which goes into the planning, preparation and finally taking the test. Also, people don't calculate the cost if they fail to pass the exam in the first attempt.

Both of these factors cost a lot in terms of effort and money. Now, you know how to estimate the effort required.

Divya Chopra is the founder of CertLobby. CertLobby (

) ensures your success in

various IT certification exams by providing you the best available resources to prepare for various exams. The selected list of Practice Exams, Articles & Tutorials, Trainings & Bootcamps, and

Discussion Forums makes sure that you are using the best available options to be successful in your journey to be certified.



**This Free E-Book has been brought to you by [Natural-Aging.com](http://Natural-Aging.com).**

**100% Effective Natural Hormone Treatment**  
**Menopause, Andropause And Other Hormone Imbalances**  
**Impair Healthy Healing In People Over The Age Of 30!**