

## Taking a Remote Exam with the Silicon Valley VE Group

A remote exam session is a bit more involved than an in-person session. Here's a summary of what you'll need to provide in the way of equipment and information, and what the test procedure is like.

### Equipment You'll Need

To participate in a remote test session, you'll need the following equipment:

- A tablet, laptop, or desktop PC that can run the Zoom desktop client or Zoom app. Most modern computing devices and operating systems can run Zoom; if you're unsure, refer to <https://support.zoom.us/hc/en-us/articles/201362023-System-requirements-for-Windows-macOS-and-Linux>. This device also needs to run our exam software through a browser. Almost any modern (i.e., HTML5) browser should be OK, although we suggest not using Microsoft Edge.
- An Internet connection that can support 10Mbps in either direction, i.e., up and down.
- An Android or Apple phone that can run the Zoom app. We'll be using your phone as a camera to observe you during the test, so you'll need some way to prop it up next to your computer, and a power cable to keep it running during the exam. (Don't depend on the battery!).

### Information You'll Need to Provide

Before taking the exam, you'll fill in an online form that asks for information required by the FCC. Be sure to have the following info handy:

- Your name and address. The address has to be one at which you receive mail, and that is serviced by the US Post Office.
- A phone number at which you can be reached during the day
- An email address.
- An FCC Registration Number (FRN). This number, which identifies you to the FCC, can be quickly obtained online at <https://apps.fcc.gov/coresWeb/publicHome.do>. There is no charge for the issuing of an FRN. Note that we cannot accept Social Security numbers in place of an FRN.
- The license class you want to test for: Technician, General, or Extra. (At the moment, in the interest of conserving resources, we can administer only one exam per applicant per session.)
- If you're testing to upgrade an existing license, we'll need your current call sign and license class, as well as any grandfather credits you may have. We'll pull your license address from the FCC database. (If you want to change the address on file at the FCC, we can do that, too.)
- ID – You'll need a government-issued photo ID that you can hold up to your phone's camera. Youngsters can be identified by an parent or legal guardian with proper ID.

### Exam Fee

The exam fee is \$15, which you'll remit using PayPal.

### Age

Remote exam applicants must be at least 14 years old.

## Taking the Exam

Before the exam, we'll send you an email containing an IP address for the exam server, an exam server ID and password, and a URL for a Zoom meeting. You'll use this information in the following steps.

To start an exam:

1. Open the email on your tablet/laptop/desktop and click on the exam server's IP address. This should open the exam server's login page in your default browser. Enter your login ID and password, and you'll be granted access to the exam system. **PLEASE DO NOT ENTER ANY OTHER INFORMATION INTO THE EXAM SERVER AT THIS TIME; WE'LL HELP YOU DO THAT ONCE YOU'RE IN THE ZOOM MEETING.**
2. Click on the email's Zoom meeting URL. If you already have the Zoom app on your device, the link should open up the Zoom meeting on your screen. If not, Zoom will be installed automatically, at which time you'll be taken to the Zoom meeting. Note that you may have to spend a few minutes in a Zoom waiting room before being admitted to the Zoom call.
3. Log into the Zoom meeting a second time, this time from your cell phone, following the same procedure. Then set up your cell phone to give us a view of yourself, your desktop, and your screen from the side; see photo below.



Morris, AD6ZH, demonstrating proper camera positioning for the exam.

4. When the exam administrator and examiners are ready to help you fill out the paperwork, we'll ask you to share your tablet/laptop/desktop's screen via Zoom.
5. You'll take the test on your tablet/laptop/desktop by logging into a test server whose web address we'll give you at exam time, answering 35 questions for the Technician or General exam or 50 questions for the Extra exam. All questions are multiple choice, with four possible answers. You'll be able to review and change your answers before you submit the exam for grading.

A few ground rules:

- Your tablet/laptop/desktop can have only one screen.
- We need to be able to hear your voice from the tablet/laptop/desktop (preferred) or your cell phone, but not both. Please make sure that only one device is feeding us your audio.
- Please don't use a headset for audio. We have to be able to hear whatever you're hearing.
- No one else can be in the room when you're taking the test. One exception: the parent of a minor can be present, but cannot assist the test taker during the exam.

### **It's OK to Ask Someone to Help You Get Set Up!**

We're going to do everything we can to help you get your PC/laptop/phone running on Zoom, and we're usually successful. But there's a limit to what we can do remotely. Perhaps you don't feel comfortable setting up Zoom, or configuring computers and phones. Or maybe you've borrowed one or more of these devices from someone else, and you're unfamiliar with how they work. Whatever the situation, feel free to ask a computer-savvy friend or relative to work with us to help set up the devices before you take the exam. They can't be present while you're taking the test, of course, but having them help you get set up beforehand is perfectly fine.

- Before the exam starts, we'll ask you to use your cell phone to show us the room where you're taking the exam, including the entire desktop, after which you can return the cell phone to the side of your desk.
- We ask that you use a calculator app on your tablet/laptop/desktop instead of a physical calculator. Please limit yourself to the simple calculators that are part of your computer's operating system.
- For the time being, we're not allowing the use of scratch paper.

Examiners will guide you through the rest of the process. The test itself will be displayed on your computer screen as 35 or 50 questions with four possible answers each. You can change answers if you change your mind, up to the point when you indicate you've finished.

### **What Happens Next?**

Once you complete the exam and the examiners concur that the exam was conducted properly, your answers will be graded automatically and the results reported to you. We'll send those results to the ARRL electronically. In the past, results we FedExed to the ARRL on a Saturday would almost always appear in the FCC database by the following Friday, and usually sooner. But staffing at ARRL HQ is light these days, with much work being done from staffers' homes, so the processing time is a bit of an unknown at the moment.

Rev. E, 08/05/2021 – Please send corrections and suggestions to [w6bp@arrl.net](mailto:w6bp@arrl.net)