

# Laboratory Procedure and Reports

## **Reason for Laboratory Investigations**

Laboratory investigations are an important part of your electronics technology education. A well-performed experiment will demonstrate a circuit or a theory that you are studying. Performing an experiment and reporting on it should help improve your knowledge of the subject.

In the laboratory, you will become familiar with equipment that will be encountered again in employment. You will also have opportunities to gain skills in recording and analyzing experimental data and in preparing technical reports.

## **In the Laboratory**

You will work alone or in groups at the discretion of your instructor.

You will follow the procedure listed in the lab handout or manual for each experiment, but you should also have your textbook and calculator with you.

Most of the equipment that you use in the laboratory is quite expensive. Use it carefully to avoid damage.

Remember that **ELECTRICITY CAN BE LETHAL**; so take care not to risk the safety of yourself or others. If in any doubt about matters of safety, consult your instructor.

Follow the procedure exactly as listed for each experiment unless otherwise instructed by your instructor. The procedure is designed to demonstrate the theory under investigation as efficiently as possible. Failure to follow the procedure exactly may result in incorrect data.

Record the experimental data on the record sheet provided or in an approved laboratory notebook as required by your instructor.

At the beginning of each investigation, write down the title of each experiment, the date, and the name(s) of any partner(s) working with you. The experimental data should be recorded as neatly as possible. Where procedure is repeated because of error, cross out, but do not erase, the faulty data.

After the experiment is completed, switch off all equipment and disconnect the supply cords. Return all instruments, cables, components, etc. to their normal storage locations. Instruments should have their supply cords coiled up, and dust covers (if available) should be placed over them. Leave your work area clean and tidy.

Do not waste any time in the laboratory. Your investigations must be completed and your work area cleared by the end of the assigned time period. Another class will normally be taking over at the end of your laboratory period. If you do not complete the investigations in the time allocated, you may be required to finish the experiment at another time.