



About The CHT Exam

No Surprises!

The certification test for exterior technicians is a full-day event. The majority of the test is hands-on and performed in the field but there are some written problems (that are scheduled at a regional location before the practical exam). The applicant selects a specialty area (installation or maintenance) to augment the Common Core material. Each problem has a time limit set for its completion. The candidate is judged on work methods for adherence to best practices and safety ideals.

Every problem must be passed to earn the designation Certified Horticultural Technician. Candidates may retest the problems needed at any provincial test. Observers attend each test to assure the program is administered consistently across North America.

All candidates are tested on the Common Core problems:

Problem 1.02 First Aid and Safety

This written test is in Multiple Choice format. You need to be familiar with the information in the following three pages. There are also additional “common sense” questions, beyond what information is given.

Problem 1.03 Plan Reading

You are given a landscape plan showing some of the details in a residential yard. It is inefficient to keep going back for additional materials, so your employer has put you in charge of calculating the materials needed for this job. First you need to be familiar with the scale on the plan and using an architect scale. Incorrect use of the architect scale will result in major errors, so be very careful. Reading the North arrow is also important. You will be required to do some simple counting of items on the plan, but study the plan carefully to make sure you have counted them all. You will need to calculate the area of lawn and paving stone. Make sure you add up all the areas. Plant spacing also involves area calculation. Now for the true test of your geometry skills, you will need to calculate volume of materials. This requires calculating area first and then factoring in the depth of material.

Problem 1.04 Plant Sensitivity and Use

Problem 1.05 - Plant Identification

You have arrived at a job site and are assigned 30 plants that have lost their tags and have only numbers on them. You forgot your plant ID text at home. Match the plant numbers to the plants on the list given to you. Ten of the 40 should be left blank.

Problem 1.06 - Sod Installation

This customer has only a small rectangular box that needs sod. Establish the correct grade first. Allow for the thickness of sod. Calculate amount of fertilizer based on the size of the box and then spread the fertilizer. Follow the instructions and install the sod. Be careful, as these rolls can be heavy. Next, tell the customer how to water the new sod. Allow enough time to dismantle the station at the end of the time period.

Problem 1.07 - Work Orders and Reports

Your employer needs to have a record of work completed for billing purposes. Write down your activities at the grading and sod station on the provided work order sheet. You will need to write down how long it takes to do the grading, fertilizing and sodding. You will also need to write down the area and amount of fertilizer. Make sure all blanks are filled in correctly.

Problem 1.08 - Program Controller

You have arrived at a work site and find the homeowner has deleted the watering program on an irrigation controller. Program this controller using the instructions provided by your company. Demonstrate how to manually activate one zone.

Problem 1.09 - Irrigation Identification

You will be shown irrigation system parts and an irrigation plan. You will need to identify parts and be able to explain their function. Be able to read a basic irrigation plan and identify laterals and mainline.

Problem 1.10 - Lateral Repair and Head Adjustment

You arrive at a job site and are told an underground irrigation pipe has been damaged. You must first locate the problem, safely repair the line and flush the system. While you are on site, the homeowner asks that you adjust three sprinkler heads. Just your luck, each sprinkler head is different. Adjust these to ensure proper coverage.

Problem 1.11 - Truck & Trailer

Your employer has emphasized the importance of driving safety. The truck, trailer and equipment are valuable. Your employer would like to see that they reach the work site in good order. Imagine that the traffic cones represent a fence in the yard for the first part and cars parked along a street for the second part. You are not allowed to cross that line of cones. Cones are also used to mark the parked trailer. You need to explain the daily maintenance routine for the first thing in the morning. Hook up the trailer in your yard, then proceed into the street. You need to use your mirrors to back into a T and then again to return the trailer to its original position.

Problem 1.12 - Tree Planting and Staking/Guying

You are on a city job and must carefully follow the tree planting details. There has been a problem with too many trees dying because they were planted incorrectly. The city forester will first test your skills, while leaving the tree in the pot. The details may be different than what you have been used to using, but you need to show you can follow these instructions. You will need to give verbal explanations for root-bound conditions and watering. Then you will need to stake or guy the tree. Take note of wind direction and size of tree.

Problem 1.14 - Chainsaw

You were not the last one to use the chainsaw. You need to check everything to make sure it is safe to use. You need to explain oil and gasoline mixing procedures and ratios for two-cycle engines. Safety is most important when using a chainsaw. All safety equipment will be provided and needs to be worn. When ready, start the chainsaw and cut a section off the log.

All candidates choose one of these specialty modules to complete the requirements.

Installation

Problem 2.01 - Plant Layout

Your planting area provided is 20' x 20' (6 m x 6 m). An architect scale and a measuring tape will be the only tools you need. Take note of the side the plants will be viewed. The judge will provide you with a copy of the plan. Your task is to set the plants out according to the plan. You may make all your measurements first and write them on this working copy of the plan. You may use flags to mark the plant locations first. Poly line or rope will be used to mark out the edge of the annual bed. Proper plant handling is also important. Allow time to dismantle at the end of the period.

Problem 2.02 - Grading & Drainage

The grading area provided is a wooden frame partially filled with sand. Add or remove sand as needed to create contours to match the details. Take note of the Front of the box. The judge will provide you with a copy of this plan. You may make all your measurements first and write them on this working copy of the plan. An architect scale, a long straightedge and a measuring tape are provided along with other hand tools. Remember this is also a drainage test. All areas of the box must drain to the catch basin you have installed.

Problem 2.03 - Instrument

Your supervisor asked you to demonstrate your abilities to use a survey instrument. An area has been set out to represent the front stoop and a point out in the front yard. You must demonstrate how to handle and set up the equipment. Next, accurately record the two elevations and the distance apart. Now, you need to create a 4% slope away from the stoop. This is where you need your mathematics skills. How much will need to be cut or filled to create this slope? Then you will need to know the final rod readings when the slope is complete. Also be familiar with grade stakes and how they are used.

Problem 2.04 - Paver Installation

You need to complete a small paving stone project. Your co-worker has already completed the excavation. The gravel preparation is almost complete. You only need to do the final base preparation and create a 1% slope. The header board at the end represents the correct finished height of the paver pad. Continue with the edging, sand base, installation and

compaction. The saw and compactor have been checked for fluids and are ready for use. Allow time to disassemble the test at the end of the period.

Problem 2.05 - Rototiller

You have picked up a rototiller but are not sure who last used it. Make sure you are familiar with the operation of that specific rototiller before operating it. The site foreman will explain which area needs to be tilled. Check the area. Make sure the rototiller is ready to use and then proceed safely

Problem 2.06 - Tractor/Skid-Steer Operation

Your employer has set up a course to test your operating skills before you will be allowed to use the equipment to fill a real truck. The first step will be checking that the machine is ready. The traffic cones outline the course and are far enough apart that the cones should not be touched. Your task is to move material from the pile, through the course and dump it over the side of a simulated truck. You must return through the course. Then, demonstrate grading and cleaning up the area with the equipment.

Maintenance

Problem 3.01 - Written General Comprehension

This is a multiple choice test. You will need to be familiar with the following:

1. Lawn mowing, aerating, fertilizing and watering practices
2. Types of lawn grass
3. Fertilizer analysis (N-P-K)
4. Pruning practices
5. General safety guideline using pesticides
6. Mixing ratios for pesticides
7. Types of pesticides (herbicide, insecticide, etc)
8. Basic plant structure
9. Plant life cycles (annual, biennial, perennial)
10. Basic irrigation repairs

Problem 3.02 - Pruning

Before you start work on the pruning crew, you need to demonstrate your knowledge and abilities. Your verbal comments will test your knowledge on basic tree structure, types of pruning and use of pruning tools. You will have to use a hand pruner for a few small cuts and then a handsaw to cut a large limb using the 1-2-3 method. Use the safety gear provided. You will then show which tools should be used to cut specific branches on the tree. These are only marked with clothespins and/or flagging tape. The power shears have been checked and are ready for you to turn on and then off. Demonstrate your shearing technique with the shears off.

Problem 3.03 - 21" Mower

You have been sent to mow a small lawn but the mower blade is dull. An area is marked out for you to change the blade first. Be careful, those new blades are sharp. Do a complete check to make sure the mower is ready for operation. The customer is curious and wants to

know how to lubricate the mower and how to change the mowing height. The lawn area is marked out with spray paint. Assume there is a walkway on all four sides of this area, so be careful where you direct those clippings. Stakes represent tree trunks. Remove debris and make sure the area is ready to mow. Begin mowing safely and efficiently. Be aware of the overlap.

Problem 3.04 – Intermediate Walk-Behind Mower

You have been sent to mow a lawn. Do a complete check to make sure the mower is ready for operation. The customer is curious and wants to know how to lubricate the mower and how to change the mowing height. The lawn area is marked out with spray paint. Assume there is a walkway on all four sides of this area, so be careful where you direct those clippings. Stakes represent tree trunks. Remove debris and make sure the area is ready to mow. Begin mowing safely and efficiently. Be aware of the overlap.

Problem 3.05 - Aerator

You have been sent to aerate a lawn. Your customer is unsure if aerating is necessary. You will need to explain the benefits of the procedures you will be performing. Take a core sample from the turf and discuss the soil moisture level and the need for aeration or detaching. The customer shows an interest in your machine so take time to explain how to check and prepare the machine for operation. Prepare the site and flag any sprinkler heads. Start aerating the area. Be careful when you cross that sidewalk.

Problem 3.06 - Edger & Trimmer

You arrive at a site that needs some edging and trimming along a walkway. A wooden header, sidewalk or curb may represent this walkway. Watch out for those pedestrians on the walkway. The grass around the trees at this site requires trimming. Stakes are used to represent trees. You will need to check and prepare the edger. The trimmer is ready to use

Problem 3.07 - Riding Mower

You arrive to mow an area of lawn as marked out. Assume there is a walkway on all four sides of this area, so be careful where you direct those clippings. Stakes represent trees in the turf area. A sheet of plywood may represent the fuel-up area. You need to check the mower to make sure it is ready for safe mowing. Remove debris and make sure the area is ready to mow. Begin mowing safely and efficiently. Be aware of the overlap. Park mower safely when finished

Problem 3.08 - Pesticides

You arrive at a typical landscape with three types of pest problems. You have familiarized yourself with all labels prior to arriving. Label instructions will indicate what Personal Protective Equipment (PPE) is required. The first area is a 10' x 10' (3 m x 3 m) planting bed containing three shrubs. Kitty Litter will be used for the granular pesticide for this problem. Use caution around the shrubs. The second pest problem is spraying the weeds in tree wells. These may be represented by spray painted circles around plastic pots. Dye and water will be used to represent the pesticide when mixing. Avoid spraying the grass beyond the circles and avoid hitting the tree trunks. The third pest problem is spraying a shrub and a

tree for aphids. Note the wind direction when spraying. Be able to explain pesticide safety issues regarding clean up, spills and container disposal.

Problem 3.09 - Fertilizer

You arrive at the site requiring fertilizer. The painted area or large tarp represents a turf area. You are told the exact area of this turf. First, you must explain how to calibrate the spreader. Kitty Litter has been substituted for the fertilizer. Read the label instructions for fertilizing turf areas. Follow these instructions to calculate the amount of fertilizer you will need to weigh. Use the spreader to apply this amount. For the next part, assume the tree provided is a mature, established tree. Again follow the label instructions for fertilizing established trees

Problem 3.10 - Power Blower

You are sent to a work site where the turf area is bordered by an office, driveway and walkway. Assume it is a warm, summer day. The office windows are open and vehicles are present in the driveway. Upon arriving at the site, you will check and prepare the equipment for operation. Identify and remove any existing hazards prior to operating the blower. Then proceed to clean the areas with the blower. Once finished, clean the blower and prepare it for storage

You can contact Paula Wheaton, CHT Atlantic Region Administrator at (902) 463-0519 for more information on certification.