

Proctor instructions for practical exams Industrial Electronics Technician Part 1 2025



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Part 1: PRACTICAL EXAM Instructions:

Continental Tire Group A – 7:30am

Continental Tire Group B - 8:30am

Wieland – 8:15am

Welcome to your Industrial Electronics Part 1 Practical examination. I am _____.

I and the exam board will be observing and asking you questions you during your testing today. I will have the exam board introduce themselves. *(Have exam board introduce themselves)* If you have any questions, please to do not hesitate to ask. If I or an exam board member can clarify anything, we are happy to do so.

Now is the time to turn off or silence and bring up all cell phones to the front *(on a desk or in a drawer)*. Should a phone ring during the exam, this will be cause for the proctor to end your exam. *(wait for all phones to be stored)*. You may get them back during breaks, please drop them back off before restarting after lunch.

Before you get started with your practical exam today, a few general announcements.

If you are experiencing any health issues that would make you unable to complete this examination today, please let us know at this time. Any grievances once the exam has begun, we will no longer be able to make any accommodations.

There will be a 30min lunch break at approximately 12pm – Please return at the time specified as your time will continue then.

In addition to your tools and equipment...ITEMS allowed during the practical exam include:

- Non-communicable, non-programmable, battery-operated calculator
- Red/Orange electrical engineering book
- Pen, Pencil and Drawing tools
- Your yellow practical exam documentation

If you need any items such as a pen, pencil, your books...etc, get them now.

As your phone should already be turned in, NO Phones or pictures are allowed. No documentation related to the exam should leave the room. If you need to go to the bathroom or take a break while in the middle of the exam you may, but note that time does not stop. Only one person out of the exam room at a time. If you need to go to the bathroom now, please do so before the next instructions. *(wait if anyone needs to use the restroom)*

Any questions so far before we get started into more detailed information about your exam?

Your practical exam will be 6.5 hours, each of you will have a countdown timer that will be at your workstation for all to be able to see. *(set each time for 6:30)* This timer will be stopped for lunch and in the event an exam board member is not available when you are ready to commission. Otherwise the timers continue, even if you take a bathroom break.

You are expected to work independently on the exam. While it is ok to talk to others, please keep it to a minimum so as not to disrupt others and do not discuss the exam task unless asking to borrow a tool or

something like that. As already mentioned, exam board will ask questions of you throughout the exam as part of your technical discussion score for your practical exam.

I will now pass out your **practical task documentation packets** and review what should be inside.

(Pass out test documentation in the plastic sleeves to apprentices and an additional blank note sheet)

The documents should have a label with your name on it and your assigned test taker number. If you need to separate a document from a stapled packet, that is ok, just write your name on it and make sure that all documentation is returned and complete at the end of the exam. If you do not have any document in your packet please let me know...as I go through each one.

1. First in your packet – the Work assignment on Sheets 1. The sheet number is indicated in the top right corner or the bottom right corner on every page.
 - a. Sheets 1 contains an overview of the content of the packet and a diagram of the final status of the system including equipment identifiers
 - b. Sheet 2 is the functional description – how your equipment should function by the end of the day.
2. Sheet 3 is a Work PLANNING document.
 - a. Until today, you have only had YELLOW preparation documentation. Your equipment should represent your yellow documentation. You will need to identify and make any changes to this system based on the new documentation that you are receiving now.
 - b. On Sheet 3.1 you are asked to write out a work plan that includes all of the changes to the control cabinet
 - c. On Sheet 3.2 you are asked to write out a work plan that includes all of the changes to the control panel and program.
 - d. Before starting your work plan, be sure review ALL of your new information – sheets 1-18 and write out a workplan.
3. Work planning goes beyond Sheet 3 in writing out a plan.
 - a. Once you know what needs to be modified, you will need to update your schematics and function block diagram to match the new function. This should be done before starting any hands-on work.
 - b. This means – FOR EXAMPLE that if the new functional description and diagram indicate that you now need to add a selector switch to the control panel, you need to
 - i. draw that selector switch into the control panel on Sheet 5
 - ii. add the selector switch to the BOM on Sheet 5 using your standard material staging list from pages 4, 5, and 6 of your yellow preparation documents
 - iii. label the new selector switch accordingly
 - iv. update the Function Block diagrams accordingly
 - v. add any connection points with proper symbols throughout Sheets 4-18.
 - c. These updates should take you about 30min. Completing the work plan and updates in your drawings is worth 20% of your final practical score.
4. Sheets 4-18 include the assembly and electrical drawings as well as the I/O information and function block diagram for the programming.
5. Sheets 19-21 are stapled together separately from your other Sheets. This is your commissioning protocol packet. Commissioning is the last thing that you do for your exam. When you are ready to commission an exam board member must be present. All modifications needed must be made to your equipment in a DE-energized state. If you think you are ready to turn on your system then you are

ready to commission. I repeat - NOTHING should be plugged in or turned on before you are ready to commission. Once you have completed the necessary commissioning steps demonstrating everything is safe to turn on and the exam board member has approved you plugging in your system...then you may energize your system.

- a. When you are completing your commissioning, you are presenting your system to the exam board. Be sure to go over each item on the list demonstrating all steps narrating the steps and results to the exam board while also recording the information on your documentation. The exam board is your customer and you are showing them that everything is good - all drawings are present, all is properly connected and safe before turning on and then finally demonstrating the function of the system.
- b. Commissioning takes between 30min and 2 hours. I would recommend at least an hour at the end to commission as commissioning often involves troubleshooting when something does not work as planned. Yes, you can commission even if you did not get everything done. If you know you will run out of time, stop where you are and request to commission with an exam board member. Simply mark no if something is not done or is not correct as you go through the commissioning. If the exam board agrees with you in each section of commissioning then you will get some or all credit for properly self-assessing depending on your ability in that step.
- c. As you are going through your commissioning, be sure to check yes or no right in front of the exam board on your sheet. If during your commissioning there is a minor and easily fixable problem, fix it quickly in the moment before going on. If the problem requires more attention, but does not cause a safety hazard, mark no, write a description of the problem, and keep going. If there is time left at the end of commissioning go back and fix the areas that were a no and show the exam board that they have been rectified before your exam time is complete.
- d. If you reach a point in your commissioning that you cannot go further or you have not been able to demonstrate that your system is safe to turn on, then the exam board will not allow you to continue with commissioning until the problem is resolved.
- e. If you are ready to commission and no exam board member is available to observe while you commission, your time will stop and you will be asked to leave the room until an exam board member is available.
- f. At the end of commissioning both you and an exam board member will sign the bottom of your commissioning packet as indicated.

Any questions?

When you have finished commissioning or your full remaining time is finished, collect ALL documentation and notes, and return it to me or another exam board member for me to check off that you have returned all documentation. No documentation should leave the room/s. Please do not disassemble anything or try to change anything after your timer has run out. Keep your equipment in the exact same state that it was when your timer ran out. The exam board may need to return to check things on your equipment during further evaluation after you are gone.

Ok, start your timers. Best of luck! You may begin.
