NTA FANUC Test 2 – Teach Pendant, Alarms, Jogging and Initial Setup Practice Test (Sample)

Study Guide

BY EXAMZIFY

Everything you need from our exam experts!

Table of Contents

Introduction

Preparing for a certification exam can feel overwhelming, but with the right tools, it becomes an opportunity to build confidence, sharpen your skills, and move one step closer to your goals. At Examzify, we believe that effective exam preparation isn't just about memorization, it's about understanding the material, identifying knowledge gaps, and building the test-taking strategies that lead to success.

This guide was designed to help you do exactly that.

Whether you're preparing for a licensing exam, professional certification, or entry-level qualification, this book offers structured practice to reinforce key concepts. You'll find a wide range of multiple-choice questions, each followed by clear explanations to help you understand not just the right answer, but why it's correct.

The content in this guide is based on real-world exam objectives and aligned with the types of questions and topics commonly found on official tests. It's ideal for learners who want to:

- **Practice answering questions under realistic conditions,**
- **Improve accuracy and speed,**
- **Review explanations to strengthen weak areas, and**
- **Approach the exam with greater confidence.**

We recommend using this book not as a stand-alone study tool, but alongside other resources like flashcards, textbooks, or hands-on training. For best results, we recommend working through each question, reflecting on the explanation provided, and revisiting the topics that challenge you most.

Remember: successful test preparation isn't about getting every question right the first time, it's about learning from your mistakes and improving over time. Stay focused, trust the process, and know that every page you turn brings you closer to success.

Let's begin.

How to Use This Guide

This guide is designed to help you study more effectively and approach your exam with confidence. Whether you're reviewing for the first time or doing a final refresh, here’s how to get the most out of your Examzify study guide:

1. Start with a Diagnostic Review

Skim through the questions to get a sense of what you know and what you need to focus on. Your goal is to identify knowledge gaps early.

2. Study in Short, Focused Sessions

Break your study time into manageable blocks (e.g. 30 – 45 minutes). Review a handful of questions, reflect on the explanations.

3. Learn from the Explanations

After answering a question, always read the explanation, even if you got it right. It reinforces key points, corrects misunderstandings, and teaches subtle distinctions between similar answers.

4. Track Your Progress

Use bookmarks or notes (if reading digitally) to mark difficult questions. Revisit these regularly and track improvements over time.

5. Simulate the Real Exam

Once you're comfortable, try taking a full set of questions without pausing. Set a timer and simulate test-day conditions to build confidence and time management skills.

6. Repeat and Review

Don’t just study once, repetition builds retention. Re-attempt questions after a few days and revisit explanations to reinforce learning. Pair this guide with other Examzify tools like flashcards, and digital practice tests to strengthen your preparation across formats.

There’s no single right way to study, but consistent, thoughtful effort always wins. Use this guide flexibly, adapt the tips above to fit your pace and learning style. You've got this!

Questions

1. **Which of the following is NOT a reason the operating range of the robot axes can be restricted?**

   A. Work area limitations

   B. Tooling and fixture interference points

   C. Cable and hose length

   D. Power supply voltage

2. **The pendant emergency stop button is still active even when the teach pendant is turned off.**

   A. True

   B. False

   C. Only when powered

   D. Disabled when off

3. **What is the role of the Safety Fence or Safe Stop in jogging?**

   A. To disable all axis movement during jogging.

   B. To log safety events.

   C. To ensure the robot cannot move into a safeguarded area and protect personnel.

   D. To accelerate jog speed.

4. **Which button is listed as a key for execution on the I-Pendant according to the material?**

   A. FWD key

   B. STEP key

   C. COORD key

   D. override key

5. **What is the typical sequence after a fault is cleared to rehome?**

   A. Immediately begin jogging toward the nearest limit switch.

   B. Move away from obstacles, then perform the homing routine again.

   C. Power-cycle the controller to reset everything.

   D. Update the tool offset and re-run once.

6. Axis limit software settings are upper and lower motion degree limitations.

- **A. False**
- **B. True**
- **C. Not applicable**
- **D. Only upper limit**

7. Tool data calibration is used to ensure movement accuracy by defining which characteristics?

- **A. Defines how to configure I/O points.**
- **B. Defines tool diameter.**
- **C. Defines tool length, orientation, and center of gravity so moves are accurate.**
- **D. Sets the robot's maximum speed.**

8. There are two LED indicators on the I-Pendant: they are the Power and Run LED indicators.

- **A. True**
- **B. False**
- **C. The indicators are Power and Alarm**
- **D. The indicators are Run and Alarm**

9. Which of the following is NOT listed as a reason errors occur?

- **A. Hardware problems**
- **B. Software problems**
- **C. External problems**
- **D. Operator error**

10. What happens when you press the ABORT (ALL) key?

- **A. It aborts all operations and resets to a safe state.**
- **B. It saves the current program and continues**
- **C. It loads the last program**
- **D. It disables safety limits**

Answers

1. D
2. A
3. C
4. B
5. B
6. B
7. C
8. B
9. D
10. A

Explanations

1. Which of the following is NOT a reason the operating range of the robot axes can be restricted?

A. Work area limitations

B. Tooling and fixture interference points

C. Cable and hose length

D. Power supply voltage

The question is about what can and cannot limit how far the robot axes can move. The moving range is defined by physical and safety boundaries, plus how you've programmed the robot to avoid collisions. Work area limitations set the overall envelope in which the robot is allowed to operate, so they directly constrain reach. Tooling and fixture interference points are physical obstacles; if a tool or fixture would collide with the arm, you must keep the motion within a safer, smaller range to prevent contact. Cable and hose length also imposes a real, mechanical limit: as the arm extends, tethering can wrap or snag, so the usable range is reduced to avoid such issues. Power supply voltage, by contrast, affects how quickly and forcefully the robot can move—its speed, torque, and acceleration—but it does not inherently change the geometric reach of the axes. If the voltage is adequate, the robot can reach its full range; if it's insufficient, performance may degrade, but the fundamental operating range isn't the constraint.

2. The pendant emergency stop button is still active even when the teach pendant is turned off.

A. True

B. False

C. Only when powered

D. Disabled when off

Emergency stop circuits are designed to be independent from the pendant's power. The E-stop button is a hardware safety input that directly halts all robot motion by triggering the controller's safety logic, regardless of whether the teach pendant is powered on or off. This ensures that a person can stop the robot immediately in any situation and stay in a safe state until the fault is cleared and the safety circuit is reset. Once pressed, the system typically latches the stop state and requires a explicit reset to resume, not simply turning the pendant back on. That's why the E-stop remains active even when the teach pendant is off.

3. What is the role of the Safety Fence or Safe Stop in jogging?

A. To disable all axis movement during jogging.

B. To log safety events.

C. To ensure the robot cannot move into a safeguarded area and protect personnel.

D. To accelerate jog speed.

The primary idea here is that a Safety Fence or Safe Stop is about protecting people by enforcing a safe operating boundary during jogging. The Safety Fence defines a guarded area, and the Safe Stop acts when the robot is approaching or would enter that zone. When triggered, it halts or restrains the robot's movement so it cannot move into the safeguarded space, reducing the risk of injury to personnel working nearby. This function is about boundary protection, not about logging safety events or increasing jog speed, so its purpose is not to disable all motion or to drive faster.

4. Which button is listed as a key for execution on the I-Pendant according to the material?

A. FWD key

B. STEP key

C. COORD key

D. override key

The main concept tested is which button on the I-Pendant is used to run or advance through a program. The STEP key is the one designed for execution in a controlled, incremental way—pressing it moves to the next instruction, letting you verify each step safely and precisely. The other buttons have different roles: FWD handles forward motion but isn't about executing program steps, COORD changes or references coordinate modes, and the override key adjusts speed or safety limits rather than stepping through instructions.

5. What is the typical sequence after a fault is cleared to rehome?

A. Immediately begin jogging toward the nearest limit switch.

B. Move away from obstacles, then perform the homing routine again.

C. Power-cycle the controller to reset everything.

D. Update the tool offset and re-run once.

After a fault is cleared, you want to return to a safe, controlled reinitialization. The right sequence is to move the robot away from any obstacles, then run the homing routine again. This provides clear space for the machine to approach its home sensors without risking contact with nearby objects, and it reestablishes a known reference position so future moves are accurate. Jogging straight toward a limit switch could cause a collision or re-trigger a fault, so it's not appropriate. Power-cycling the controller is disruptive and doesn't guarantee a safe or clean rehome. Updating the tool offset is something done after rehoming to reflect the current tool setup, not part of the rehome process itself.

6. Axis limit software settings are upper and lower motion degree limitations.

A. False

B. True

C. Not applicable

D. Only upper limit

Soft limits set a safety window for each axis. In the axis control software, you define an upper limit and a lower limit that bound how far the axis can move. When you jog or run a motion, the controller checks the target position against these two bounds and will stop or reject moves that would go past either limit. This two-sided restriction protects the mechanism from over-travel, prevents collisions, and supports safe homing and reset procedures. The exact units depend on the axis—rotary axes use degrees (or equivalent counts), while linear axes use distance. While there may also be hard physical stops, the standard software constraints are the two-sided limits used during normal operation, so the statement is correct.

7. Tool data calibration is used to ensure movement accuracy by defining which characteristics?

A. Defines how to configure I/O points.

B. Defines tool diameter.

C. Defines tool length, orientation, and center of gravity so moves are accurate.

D. Sets the robot's maximum speed.

Tool data calibration establishes exactly where the end of the tool sits and how it is oriented in space, so every commanded move ends at the intended point with the right direction. The tool length offset tells the controller how far the tool tip is from the flange along the tool’s axis, so a move to a given pose places the tip where you expect. The orientation defines how the tool’s coordinate system is rotated relative to the robot, ensuring the tool’s axis aligns with the intended direction of operation. The center of gravity is used by the control during dynamic motion to account for gravity and inertia, keeping accuracy during accelerations, decelerations, and orientation changes. Other aspects like I/O configuration, tool diameter, or maximum speed govern signaling, physical size for clearance, or performance, but they do not define the accurate geometric placement of the tool tip, which is why defining length, orientation, and CoG is essential for accurate moves.

8. There are two LED indicators on the I-Pendant: they are the Power and Run LED indicators.

A. True

B. False

C. The indicators are Power and Alarm

D. The indicators are Run and Alarm

LED indicators on the I-Pendant show power, motion, and fault status. The claim that there are only two indicators named Power and Run isn't accurate because the I-Pendant actually has three indicators: Power, Run, and Alarm. So the statement is not true. Understanding this helps you quickly spot issues: Power lights when the pendant is powered, Run indicates the pendant/robot is in operation or jogging, and Alarm signals a fault or warning that needs attention.

9. Which of the following is NOT listed as a reason errors occur?

A. Hardware problems

B. Software problems

C. External problems

D. Operator error

Diagnosing errors in a robotic control setup centers on whether faults arise from hardware, software, or external conditions. Those categories cover faults intrinsic to the robot's components, the control software, or things outside the system that affect operation. Operator actions, while they can cause problems in practice, aren't considered a system fault category in this framework. That's why operator error is the choice that isn't listed among the typical fault causes here. If there's concern about how a user interacted with the system, that would be explored separately through procedures, training, and usage practices rather than diagnosing a hardware, software, or external fault.

10. What happens when you press the ABORT (ALL) key?

A. It aborts all operations and resets to a safe state.

B. It saves the current program and continues

C. It loads the last program

D. It disables safety limits

When you press ABORT ALL, you trigger a safety-focused emergency-like stop that immediately halts all robot motion and the active program, and leaves the controller in a safe state. This means any ongoing actions stop, the current task ends, and alarms or fault states are cleared so the system isn't in motion or executing code. It's designed for immediate protection, not for normal workflow. After using ABORT ALL, you typically need to perform a RESET to re-enable the system and proceed with another task (such as loading a program or re-homing). This is why the option described as aborting everything and resetting to a safe state is the correct description. The other options describe actions that don't align with the safety-focused stop behavior: saving a program and continuing, loading the last program, or disabling safety limits are not what ABORT ALL does.

Next Steps

Congratulations on reaching the final section of this guide. You've taken a meaningful step toward passing your certification exam and advancing your career.

As you continue preparing, remember that consistent practice, review, and self-reflection are key to success. Make time to revisit difficult topics, simulate exam conditions, and track your progress along the way.

If you need help, have suggestions, or want to share feedback, we'd love to hear from you. Reach out to our team at hello@examzify.com.

Or visit your dedicated course page for more study tools and resources:

https://ntafanuc2.examzify.com

We wish you the very best on your exam journey. You've got this!