Fuji Automatic Numerical Control (FANUC) SECE Practice Test (Sample)

Study Guide

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. **What will happen when you disconnect all the cables from the J3 axis motor?**

   A. The J3-axis will have to be mastered

   B. The motor will automatically reset

   C. All settings will be preserved

   D. The J3-axis will operate in safe mode

2. **Which statement regarding Dual Check Safety features is correct?**

   A. They require external sensors for monitoring

   B. They do not need additional external sensors to monitor speed and position

   C. They can function without external input signals

   D. They decrease the safety of the operation

3. **When using the Prog Adjust utility, what is the correct action?**

   A. Press CLR_ADJ to discard changes

   B. Press CLR_ALL to save the current enabled/disabled data values

   C. Press the function key to exit the menu

   D. Press the start button to execute adjustments

4. **What does the Position pasting type do?**

   A. Pastes instructions randomly

   B. Pastes in sequence without changing Position ID's

   C. Pastes in order and renumbers Position ID's

   D. Only pastes the last instruction

5. **What is the proper lubricant for the M-410iB reducers?**

   A. Kyodo Yushi VIGOGREASE RE No. 0

   B. Synthetic motor oil

   C. General-purpose grease

   D. Machine oil ISO Grade 32

6. What is the suggested type of motion used to move the robot to a Home position?

A. Joint

B. Linear

C. Circular

D. Opcode

7. Shift and Point are needed to do what?

A. Record current position of the robot

B. Execute a program

C. Abort a motion

D. Change tool settings

8. How can robots improve efficiency in manufacturing processes?

A. By reducing the number of employees

B. By providing consistent precision and speed

C. By removing the need for maintenance

D. By increasing energy consumption

9. What are the two possible actions of an IF/SELECT statement?

A. FOR and WHILE

B. CALL and RETURN

C. JMP LBL and CALL

D. BREAK and CONTINUE

10. Which command helps in modifying various aspects of a program, including motion and speed?

A. EDIT Command APPEND

B. EDIT Command REPLACE

C. EDIT Command MODIFY

D. EDIT Command DELETE

Answers

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

Explanations

1. What will happen when you disconnect all the cables from the J3 axis motor?

A. The J3-axis will have to be mastered

B. The motor will automatically reset

C. All settings will be preserved

D. The J3-axis will operate in safe mode

When all the cables are disconnected from the J3 axis motor, the correct outcome is that the J3-axis will have to be mastered. Mastering an axis involves positioning the machine to a designated reference point so that the control system can establish a baseline for the axis's movements. This is essential for accurate positioning and operation. Disconnecting the cables disrupts the communication between the motor and the control unit, leading to the loss of the current positional information. Consequently, the system will not know where the axis is located in relation to its programmed limits or zero position, necessitating a re-mastering process once the cables are reconnected. The other scenarios do not accurately reflect the implications of disconnecting the motor's cables. The motor will not automatically reset, as reset operations typically involve software commands rather than hardware disconnections. Settings associated with that axis may not be preserved due to the loss of power and communication, meaning any temporary or positional data may be lost. Furthermore, the axis going into a "safe mode" is not a standard response to disconnection; it would require specific internal logic conditions to be met, which are not inherently triggered by the act of simply disconnecting cables.

2. Which statement regarding Dual Check Safety features is correct?

A. They require external sensors for monitoring

B. They do not need additional external sensors to monitor speed and position

C. They can function without external input signals

D. They decrease the safety of the operation

The Dual Check Safety (DCS) features in FANUC systems are specifically designed to enhance the safety of robotic operations by monitoring the robot's speed and position. The key aspect of DCS is that it is capable of using the internal feedback mechanisms integrated within the robot itself to ensure safe operation without the need for additional external sensors. This means that DCS can monitor critical parameters effectively using the built-in systems, which simplifies the implementation and increases reliability. By utilizing the robot's internal sensors, the system can ensure that operations remain within designated safety thresholds, thus providing a seamless and secure working environment without necessitating added hardware. This intrinsic capability reinforces the efficiency of the DCS features in safeguarding operations while minimizing complexity and potential points of failure that might arise from relying on external sensors or signals.

3. When using the Prog Adjust utility, what is the correct action?

A. Press CLR_ADJ to discard changes

B. Press CLR_ALL to save the current enabled/disabled data values

C. Press the function key to exit the menu

D. Press the start button to execute adjustments

When using the Prog Adjust utility, pressing CLR_ALL to save the current enabled/disabled data values is the appropriate action. This action allows users to maintain a record of the current state of settings, which can be crucial for ensuring that the machine operates as expected under specific conditions. CLR_ALL captures and preserves the configuration, allowing users to recall these settings later, enhancing workflow efficiency and consistency in operations. Maintaining the current enabled/disabled state is important for tasks where adjustments may need to be revisited or where specific settings are crucial for the performance of the machine in particular tasks or manufacturing processes. By saving these values, operators can ensure they are working with the correct parameters, reducing the likelihood of errors or misconfigurations during subsequent operations.

4. What does the Position pasting type do?

A. Pastes instructions randomly

B. Pastes in sequence without changing Position ID's

C. Pastes in order and renumbers Position ID's

D. Only pastes the last instruction

The Position pasting type is designed to facilitate the transfer of instructions in a logical sequence while automatically renumbering the Position IDs. This feature is particularly useful in programming environments where maintaining the correct order of operations is critical for the functionality of the program. By pasting instructions in order and adjusting the Position IDs appropriately, it ensures that the workflow is preserved and the system can execute the commands as intended without confusion or overlap that could result from conflicting IDs. This organized method of pasting enhances the readability and maintainability of the code, making it easier for programmers to follow or modify in the future. The other options do not accurately reflect the purpose of Position pasting. Random pasting or pasting without changing Position IDs would not maintain an orderly sequence, while the limitation of pasting only the last instruction would significantly restrict the programmer's ability to create comprehensive and functional code.

5. What is the proper lubricant for the M-410iB reducers?

A. Kyodo Yushi VIGOGREASE RE No. 0

B. Synthetic motor oil

C. General-purpose grease

D. Machine oil ISO Grade 32

The proper lubricant for the M-410iB reducers is Kyodo Yushi VIGOGREASE RE No. 0. This grease is specifically formulated to meet the requirements of robotic reducers, providing the necessary properties like high load-carrying capacity, stability under varying temperatures, and resistance to water and oxidation. Using a lubricant designed specifically for the application helps ensure optimal performance, longevity, and reliability of the robot's mechanical components. Other lubrication options, like synthetic motor oil or general-purpose grease, may not provide the same level of protection or operational efficiency required for the precision and demanding conditions that reducers in robotic applications face. Additionally, machine oil ISO Grade 32, while suitable for some machinery, does not have the thickening agents present in specialized greases, which are necessary to maintain consistent lubrication under load. Therefore, selecting a lubricant like Kyodo Yushi VIGOGREASE RE No. 0 is essential for maintaining the M-410iB's operational performance and durability.

6. What is the suggested type of motion used to move the robot to a Home position?

A. Joint

B. Linear

C. Circular

D. Opcode

The suggested type of motion used to move the robot to a Home position is joint motion. This approach is suitable because it allows each joint of the robot to move independently to reach a predefined position, known as the Home position, where the robot typically resets its state or calibration. Joint motion focuses on controlling the angles of the individual joints of the robot arm, which makes it efficient for repositioning or orienting the robot in a manner that is less energy-intensive and involves less wear on the mechanical components compared to other types of motion. In contrast, linear motion would require the end-effector to move along a straight path between points, which might not be the most efficient or safest route for returning to the Home position, especially if the geometry of the robot makes such movements complicated or if there are obstacles in the workspace. Circular motion could be used for more complex trajectories but is not ideal for simply returning to a Home position, as it adds unnecessary complexity. Opcode does not pertain directly to robot motion types and is more about programming commands for executing various functions, which is not relevant in this context. Therefore, joint motion is the most logical and effective method for moving to the Home position in a robotic system.

7. Shift and Point are needed to do what?

A. Record current position of the robot

B. Execute a program

C. Abort a motion

D. Change tool settings

The purpose of using Shift and Point in the context of programming with FANUC robotics is to effectively record the current position of the robot. When the Shift function is activated, it allows the operator to perform tasks such as moving the robot or adjusting settings in a controlled manner, while the Point function is utilized to designate specific positions in space that can be saved for later reference. This capability is essential for ensuring precise manipulation and control of the robot's movements, particularly in automated processes where exact locations need to be recalled during operation. Recording the current position of the robot is fundamental when programming paths or sequences, allowing for accurate and repeatable operations in various tasks, from assembly to welding.

8. How can robots improve efficiency in manufacturing processes?

A. By reducing the number of employees

B. By providing consistent precision and speed

C. By removing the need for maintenance

D. By increasing energy consumption

Robots improve efficiency in manufacturing processes primarily through their ability to provide consistent precision and speed. This capability enables them to perform repetitive tasks with a high level of accuracy, which is crucial in industries where small deviations can result in significant quality issues. By maintaining a constant speed during operation, robots can achieve higher throughput compared to human workers, thus reducing cycle times and increasing overall productivity. Additionally, the precision of robotic systems minimizes waste due to errors and rework, further optimizing the manufacturing process. This consistency also allows for leaner manufacturing practices, where resources can be allocated more effectively, ultimately leading to improved operational efficiency. The enhanced speed and accuracy with which robots operate can lead to shorter lead times and the ability to meet increased production demands without compromising quality. Overall, the integration of robots in manufacturing not only boosts efficiency but also contributes to the scalability of production processes, making them invaluable assets in modern manufacturing environments.

9. What are the two possible actions of an IF/SELECT statement?

A. FOR and WHILE

B. CALL and RETURN

C. JMP LBL and CALL

D. BREAK and CONTINUE

The IF/SELECT statement is used in programming within the context of control flow to determine the path of execution based on conditional expressions. The correct actions associated with IF/SELECT statements typically involve mechanisms for controlling the program's flow. The actions of JMP LBL and CALL directly relate to how control is transferred in response to conditional logic. The JMP LBL statement allows for jumping to a specific label in the program, facilitating a non-linear flow based on conditions evaluated in the IF/SELECT statement. Meanwhile, the CALL statement is used to invoke a subroutine or procedure, allowing for modular programming where functions can be executed conditionally based on the IF/SELECT criteria. In contrast, the other options provided involve different operational contexts. FOR and WHILE primarily relate to looping constructs rather than the control flow from conditionals. BREAK and CONTINUE are generally used within loops to interrupt or skip iterations, which makes them less relevant to the direct action of an IF/SELECT statement. CALL and RETURN involve function control but do not encompass jumping to specific labels as JMP LBL does; thus, the contextual fit of JMP LBL and CALL makes them the appropriate actions for this statement in a programming scenario.

10. Which command helps in modifying various aspects of a program, including motion and speed?

A. EDIT Command APPEND

B. EDIT Command REPLACE

C. EDIT Command MODIFY

D. EDIT Command DELETE

The command that aids in modifying various aspects of a program, including motion and speed, is the EDIT Command REPLACE. This command allows the programmer to replace specific lines or parameters within their CNC program, making it an essential tool for making adjustments to existing instructions. When fine-tuning a program, especially in CNC machining, replacing certain lines can lead to changes in how the machine operates, including adjustments to speed and motion paths. This command is particularly beneficial because it enables users to maintain the existing structure of a program while updating only the parts that require revision. This selective modification helps enhance the program's performance and efficiency, allowing operators to adapt to new requirements or rectify errors without starting from scratch. In contrast, other commands serve different purposes. The APPEND command is used to add new lines to the end of a program. The MODIFY command would typically be used for changing parameters but does not encompass the full range of options available with the REPLACE function. The DELETE command removes lines entirely, which does not facilitate modification but rather eliminates content, impacting the overall integrity of the program.

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://fanucsece.examzify.com

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