

**FANUC**

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*Assessment Blueprint*

*FANUC Certified Robot Technician (Written)*

*Test Code: 9282 / Version: 01*

## **Specific Competencies and Skills Tested in this Assessment:**

### **Robot Safety and Safety Devices**

- Demonstrate knowledge of internal robot safety devices and functions
- Demonstrate knowledge of external safety devices

### **Basic Robot Operations Using Teach Pendant**

- Master and re-master robot
- Setup robot coordinate frames

### **Basic Robot Programming**

- Create various robot programs
- Program non-motion logic structures

### **Program File Manipulations**

- Backup individual and system files
- Restore individual and system files
- Perform image backup and restore

### **Robot Integration**

- Establish communication to peripheral devices
- Configure input/output
- Set end-of arm tool parameters

### **Advanced Operations and Programming**

- Apply advanced program functions and options
- Program auxiliary axis
- Program advanced motion and non-motion statements

### **Troubleshoot System Errors**

- Troubleshoot configuration errors
- Troubleshoot Dual Check Safety (DCS) errors

## **iRVision**

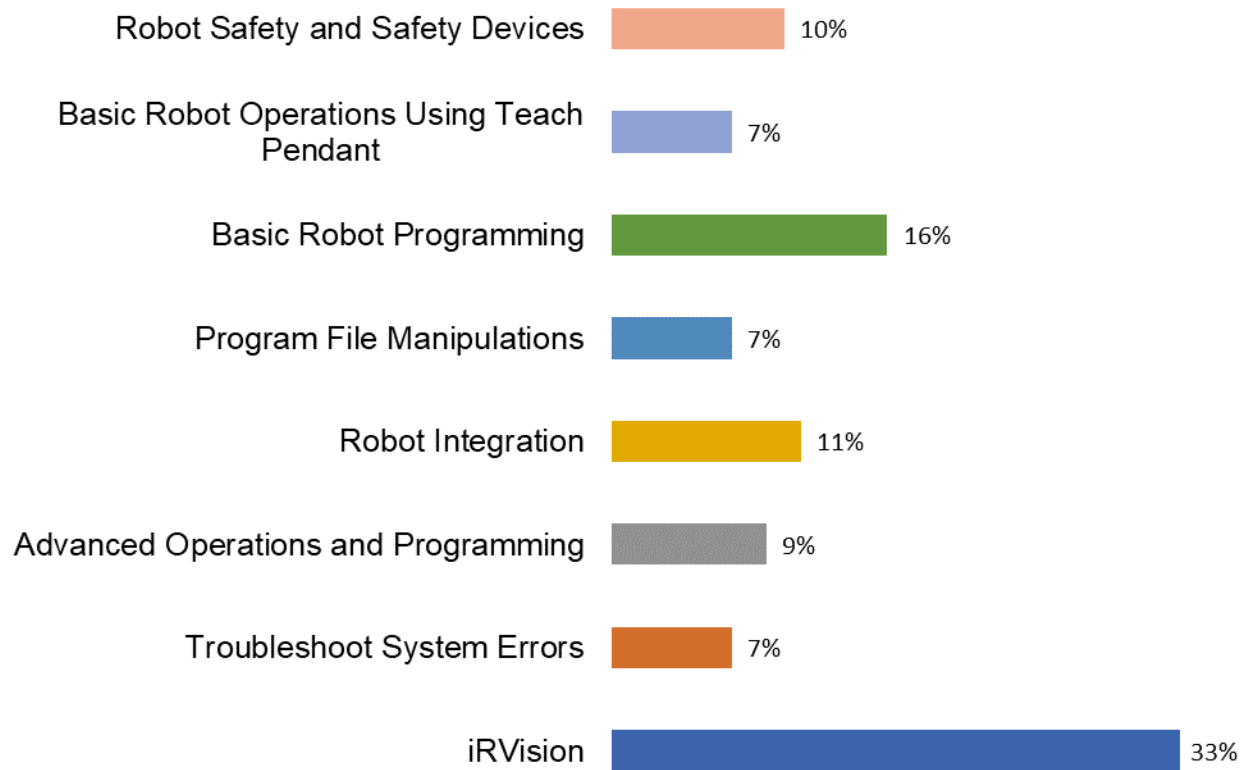
- Identify iRVision application requirements
- Demonstrate knowledge of iRVision components
- Demonstrate knowledge of iRVision system hardware setup
- Identify iRVision processes
- Determine and establish frame locations
- Perform iRVision setup
- Perform 2D calibration (automatic and manual)
- Perform error proofing process
- Apply 2D vision process
- Program instructions for 2D vision

***Written Assessment:***

**Administration Time:** 3 hours and 30 minutes

**Number of Questions:** 100

***Areas Covered:***



### *Sample Questions:*

This marks the location in a program that is the destination of a program branch.

- A. LBL
- B. POINT
- C. JMP LBL
- D. CALL

Which of the following is **NOT** an advantage of using DCS?

- A. reduce robot cell footprint
- B. decrease cycle time
- C. increase maximum payload of the robot
- D. enhance safety

The Inspection Vision Process

- A. stores positional offsets in Vision Register 1 unless otherwise indicated
- B. stores positional offsets in a Position Register
- C. requires a properly calibrated vision system
- D. none of the above

A TP instruction with the motion option TB will?

- A. set the timed position
- B. stop the motion a specified time before a programmed location
- C. can set an output at a desired time before a programmed location
- D. sets a temporary position on the fly

On the TP you can view

- A. Vision Setup, Vision Log, Vision Runtime
- B. Only Vision Log, Vision Runtime
- C. Only Vision Setup, Vision Runtime
- D. Only Vision Runtime

A basic E-stop circuit will

- A. stop all permissible devices
- B. stop only devices in the zone
- C. stop all devices in the work cell
- D. stop only devices in the robot work envelope

Which backup type will backup F-ROM and S-ROM controller memory modules?

- A. Image backup
- B. File backup, then select all of the above
- C. INIT backup
- D. SRAM backup

***FANUC Certified Robot Technician (continued)***

The program instruction "get\_nfound"

- A. returns the number of trained objects found
- B. negates the number of trained objects found
- C. is an invalid instruction
- D. cancels the number of found objects

What is the Binary decimal equivalent if digital outputs 1 through 5 are all on?

- A. 0
- B. 1
- C. 8.5
- D. 31

What should the technician do before changing the backup batteries on the robot?

- A. Make sure the power is on to the robot.
- B. Make sure the power is off to the robot.
- C. Unplug the robot.
- D. Move the robot to a safe location.