

**Vendor:** Motorola Solutions

**Exam Code:** MSC-321

**Exam Name:** Designing and Deploying Advanced Data Capture (ADC) Solution

**Version:** Demo

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**QUESTION NO: 1**

Which of the following bar code types is readable by a 1D scanner?

- A. Maxicode
- B. Data matrix
- C. QR Code
- D. Interleaved 2 of 5

**Answer: D**

**QUESTION NO: 2**

Which of the following bar codes is NOT considered two dimensional bar code?

- A. Code 39
- B. PDF 417
- C. QR Code
- D. Data matrix

**Answer: A**

**QUESTION NO: 3**

Which of the following communication interfaces CANNOT be used by an application to senddata/scanner commands bi-directionally?

- A. USB SNAPI
- B. RS-232SSI
- C. USB
- D. OPOS
- E. Keyboard Wedge

**Answer: E**

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**QUESTION NO: 4**

The ability of a scanner to decode a barcode even when there is relative motion between the barcode and the scanner is called:

- A. Ambient light immunity
- B. Aiming pattern
- C. Omni-directionality
- D. Motion Tolerance

**Answer: D**

**QUESTION NO: 5**

You have a Request for Proposal for a customer that will be receiving cars in a car rental location, customer wants to read the car's VIN barcode, take an image of the license plate and record customer specific information. The customer is price sensitive and they don't want to buy a mobile computer. Which of the following items would you recommend for this customer?

- A. LS300S
- B. LS920Si
- C. MK500 touch screen
- D. MT2090 with 2D imager

**Answer: D**

**QUESTION NO: 6**

Your customer wishes to decode the three types of bar codes from the image below.

# Bar Codes



Bar codes of this type are typically used on which of the following items?

- 
- A. Produce
  - B. Postal Items
  - C. Clothes and other Retail items
  - D. Overnight package tracking
  - E. Vehicles for toll collection

**Answer: B**

**QUESTION NO: 7**

You have a government customer that just opened a bid in Latin America for a company with 1,000 convenience stores located in small cities across Mexico and El Salvador. The customer requires the support of both 1 and 2D scanning with the same device and a minimum of 2 per store. The customer is price sensitive. Which of the following scanner combinations would you recommend?

- A. LS1203 - Corded
- B. LS2208 - Corded
- C. LS4208 - Corded
- D. LS4278 - Cordless
- E. DS4208 - Corded
- F. DS6707-SR - Corded
- G. DS6878-SR-Cordless
- H. DS9808-SR - Corded

**Answer: E**

**QUESTION NO: 8**

Which of the following scanning technologies can read laser etched barcodes?

- A. Long Range Scanners
- B. Laser Scanners
- C. DPM Scanners
- D. CCD Scanners

**Answer: C**

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**QUESTION NO: 9**

Data Matrix bar codes are typically found on which of the following items?

- A. Books
- B. Printed Circuit Boards (PCB)
- C. Package Sorting
- D. Fruits and Vegetables

**Answer: B**

**QUESTION NO: 10**

Which of the following devices uses many rows of pixels to help it decode poorly printed or damaged barcodes?

- A. Linear Imager
- B. Laser Scanner
- C. Area Imager
- D. Contact Scanner

**Answer: C**

**QUESTION NO: 11**

Which of the following scanning technologies has the highest tolerance for reading bar codes from items in motion?

- A. Linear Imager
- B. Laser Scanner
- C. Area Imager
- D. Contact Scanner

**Answer: B**

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**QUESTION NO: 12**

Which of the following scanning technologies can read both 1D and 2D bar codes on mobile phonedisplays?

- A. Any type of scanner. They all read the barcodes
- B. Linear Imager - based scanners
- C. Laser -based scanners
- D. Area Imager-based scanners

**Answer: D**

**QUESTION NO: 13**

In addition to scanning 1D and 2D barcodes, a pharmaceutical retailer needs to capture images on documents as large as 8.5 in. x 11 in. (21.6cm x 27.9cm). Which of the following scanners would BEST address this need?

- A. DS9208
- B. DS6707-DC
- C. DS6878-SR
- D. D5457

**Answer: B**

**QUESTION NO: 14**

Which of the following scanner product portfolios would include the types of products that would be used for data collection in a Warehouse or Manufacturing environment?

- A. Retail Products
- B. Consumer Products
- C. Rugged Products
- D. OEM Products

**Answer: C**

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**QUESTION NO: 15**

The MK3000 series would be the best choice for a customer with which of the following needs:

- A. Increasing user productivity at the point-of-sale
- B. Ability to read DPM codes on surgical equipment
- C. Improving customer service through the use of rich self-service scanning applications
- D. Increasing turns within the warehouse by automating item selection using a large screen device

**Answer: C**

**QUESTION NO: 16**

Which of the following requirements would NOT mandate a 2D scanning technology?

- A. Ability to read 2D bar codes.
- B. Ability to read a bar code by passing it in front of a scanner without aligning the barcode with the decode window.
- C. Ability to read a moving bar code.
- D. Ability to capture images.

**Answer: C**

**QUESTION NO: 17**

A distribution center is looking for a handheld scanner that can scan 2D barcodes up to 30 feet away. Which of the following products would BEST fit this application?

- A. DS3508-ER
- B. DS4208
- C. LS3578-ER
- D. LS2208

**Answer: A**

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**QUESTION NO: 18**

Which of the following is the best scanner product in use to connect to an Apple iPad tablet or Motorola ES400?

- A. MT2090
- B. MK3000
- C. LS3508ER
- D. CS3000

**Answer: D**

**QUESTION NO: 19**

Which of the following products would be considered Long Range scanners and can read bar codes without getting off a typical forklift truck?

- A. LS 3508 FZ & DS3508
- B. LS4208 St DS4208
- C. LS3408ER & DS3508ER
- D. LS9208 & DS9208

**Answer: C**

**QUESTION NO: 20**

Your retail customer is launching a gift registry application in their bridal department. Which product would you recommend for use as the portable scanner in this application?

- A. MT2090
- B. LS4278
- C. DS3578
- D. LS2208

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**Answer: A**

**QUESTION NO: 21**

Which of the following would be a reason a Cordless Scanning solution requires a Scanner Cable?

- A. As a back-up in case the cordless radio breaks
- B. To connect the Cradle to the Host
- C. To physically secure the scanner to the counter
- D. To charge the scanner

**Answer: B**

**QUESTION NO: 22**

A specialty apparel retailer is looking for a new scanner to connect to their Point Of Sale system. However, they are concerned about limited counter space and would like a scanner with a small footprint. Which of the following would BEST fit their need?

- A. LS2208
- B. DS457
- C. DS3578-SR
- D. DS6878-HC

**Answer: B**

**QUESTION NO: 23**

You would like to recommend a hands free scanner over a hand held scanner. You will make this recommendation when the customer:

- A. is concerned about limited counter space,
- B. intends to bring the bar code to the device,
- C. has a mobile coupon program.
- D. is using a scanner that will be used in a hospital setting.

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**Answer: B**

**QUESTION NO: 24**

Most Point of Sale systems that use an RS232 Host cable often use what additional accessory?

- A. External Power Supply
- B. Long Life Batteries
- C. Hands-free Stand
- D. Wall mount adapter

**Answer: A**

**QUESTION NO: 25**

You have identified that the customer requires a rugged scanner because it will be used in a harsh distribution center. What other questions would you ask to further refine the scanner decode technology selection (selectTHREE)?

- A. At what distance will you be reading bar codes?
- B. Will the bar codes be moving while attempting to read?
- C. Is there an 802.11n wireless LAN in use?
- D. Do you plan on performing your own maintenance on the scanners?
- E. What types of bar codes will you be scanning?

**Answer: A,B,E**

**QUESTION NO: 26**

Your customer needs a device with integrated 802.11 a/b/g for real-time application connectivity in the warehouse. Which of the following scanners would be the BEST choice for your customer?

- A. DS3578
- B. MT2090
- C. CS3070

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D. LI4278

**Answer: B**

**QUESTION NO: 27**

Your solution requires a number of users to be able to scan items into a single host application via a single host connection. Motorola scanners can support this requirement through the use of which of the following items?

- A. Setting all scanners to SPP Master
- B. Setting all scanners to HID Slave Mode
- C. Using multiple scanners in multi-point mode to a single cradle connected to the host device
- D. Add multiple keyboards to the host computer
- E. Enable Ad-Hoc mode on the host computer's Bluetooth interface

**Answer: C**

**QUESTION NO: 28**

Which of the following items is supported on a USB HID Keyboard connection?

- A. Data Capture
- B. Image Capture
- C. Remote Scanner Management
- D. Optical Character Recognition

**Answer: A**

**QUESTION NO: 29**

Which of the following host interfaces requires the barcode symbology be included in the decoded data message?

- A. Standard RS-232

- B. USB IBM Handheld
- C. USB HID Keyboard
- D. Keyboard Wedge

**Answer: B**

**QUESTION NO: 30**

You are discussing the application requirements with your customer and they inform you that they would like the host system to be able to control when their DS6707 scanner is enabled within their POS application. The DS6707 supports a number of RS232 modes. Which of the following RS232 modes allow the host POS to enable and disable the laser beam on a scanner?

Please use the RS-232 exhibit below.

**RS-232 Host Parameters**

Various RS-232 hosts use their own parameter default settings. Selecting standard, ICL, Fujitsu, Wincor-Nixdorf Mode A, Wincor-Nixdorf Mode B, OPOS/JPOS, Olivetti, Omron or Common Use Terminal Equipment (CUTE-LP/LG bar code readers) sets the defaults listed in Table 8-2.

Table 8-2 Terminal Specific RS-232

Parameter	ICL	Fujitsu	Wincor-Nixdorf Mode A	Wincor-Nixdorf Mode B/O POS/JPOS	Olivetti	Omron	CUTE
Transmit Code ID	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Data Transmission Format	Data/Suffix	Data/Suffix	Data/Suffix	Data/Suffix	Prefix/Data/Suffix	Data/Suffix	Prefix/Data/Suffix
Suffix	CR (1013)	CR (1013)	CR (1013)	CR (1013)	ETX (1003)	CR (1013)	CR (1013) ETX (1003)
Baud Rate	9600	9600	9600	9600	9600	9600	9600
Parity	Even	None	Odd	Odd	Even	None	Even
Hardware Handshaking	RTS/CTS Option 3	None	RTS/CTS Option 3	RTS/CTS Option 3	None	None	None
Software Handshaking	None	None	None	None	ACK/NAK	None	None
Serial Response Time-out	9.9 Sec.	2 Sec.	9.9 Sec.	9.9 Sec.	9.9 Sec.	9.9 Sec.	9.9 Sec.
Stop Bit Select	One	One	One	One	One	One	One
ASCII Format	8-Bit	8-Bit	8-Bit	8-Bit	7-Bit	8-Bit	7-Bit
Beep On <BEL>	Disable	Disable	Disable	Disable	Disable	Disable	Disable
RTS Line State	High	Low	Low	Low - No data to send	Low	High	High
Prefix	None	None	None	None	STX (1002)	None	STX (1002)

**In the Nixdorf Mode B, if CTS is low, scanning is disabled. When CTS is high, scanning is enabled. If you scan Nixdorf Mode B without connecting the digital imager scanner to the proper host, it may appear unable to scan. If this happens, scan a different RS-232 host type within 5 seconds of cycling power to the digital imager scanner. The CUTE host disables all parameter scanning, including Set Defaults. If you inadvertently select CUTE, scan "Enable Parameter Scanning (01h) on page 4-5, then change the host selection.**

- 
- A. ICL
  - B. Fujitsu
  - C. Wincor-Nixdorf Mode A
  - D. Wincor-Nixdorf Mode B/OPOS/JPOS
  - E. Olivetti
  - F. Omron
  - G. CUTE

**Answer: D**

**QUESTION NO: 31**

When a scanner is set up as a Bluetooth Serial Port Profile (SPP) Master, this means:

- A. The scanner can only be paired to another SPP Master device
- B. The scanner is configured to only communicate to an SPP cradle
- C. Communication can be initiated by any Bluetooth client at any time
- D. The scanner will only pair when the remote device address is part of the connection request

**Answer: D**

**QUESTION NO: 32**

On an RS232 host cable, which of the following signal line definitions is used to carry the data from the scanner to the host?

- A. DTR
- B. GND
- C. TXD
- D. RXD

**Answer: C**

**QUESTION NO: 33**

When you connect a scanner to a host system for the first time with a USB cable, what defines the

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default host protocol that the scanner will use to attempt to communicate with the host?

- A. All scanners default to a Standard RS-232 host interface
- B. All scanners default to USB HID Keyboard emulation
- C. The type of scanner cable connected defines the default communication protocol that a scanner will use
- D. Scanners do not default to any host protocol: the user is required to scan the Host Protocol bar code from the Quick Reference Guide

**Answer: B**

**QUESTION NO: 34**

You are designing a new ADC system that will include image scanners and are identifying the different software drivers that will need to be installed. Which of the following Motorola Solutions software drivers is capable of transmitting bar code data, pictures, and video?

- A. SSI
- B. SNAPI
- C. CDC
- D. WMI

**Answer: B**

**QUESTION NO: 35**

You are helping an existing customer set up her ADC system so that her scanners capture images effectively. Which of the following interfaces would support image capture?

- A. HID Keyboard
- B. IBM Handheld/ USB OPOS
- C. SNAPI
- D. Simple COM emulation

**Answer: C**

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**QUESTION NO: 36**

Which of the following scanner parameters can be configured from the 123Scan2 Image Optimization screen?

- A. JPEG Target File Size
- B. Configuration name
- C. Beeper Tone
- D. USB Communication mode

**Answer: A**

**QUESTION NO: 37**

You are discussing the advantages of Motorola Solutions scanners with your customer and want to point out all of the application languages that are supported by the Software Developer's Kit. Which of the following applications development languages are supported by Motorola Solutions Scanner SDK (select THREE)?

- A. HTML5
- B. JAVA
- C. Microsoft .NET
- D. Microsoft C++
- E. Pascal
- F. Perl
- G. Ruby

**Answer: B,C,D**

**QUESTION NO: 38**

When configuring your Digital Scanner to a Decode Redundancy Level 2 you are actually informing the scanner to do which of the following?

Table 11-3 Redundancy Level 2 Codes

Code Type	Code Length
All	All

- 
- A. Scan each bar code from two different angles
  - B. Scan and decode each bar code two times
  - C. Double the scanner aggressiveness from the default
  - D. Transmit the decoded information twice to the host application

**Answer: B**

**QUESTION NO: 39**

Where would you go to download 123Scan2?

- A. [www.motorola.com/123Scan](http://www.motorola.com/123Scan)
- B. [www.scansource.com/123Scan](http://www.scansource.com/123Scan)
- C. [www.motorolasolutions.com/123Scan](http://www.motorolasolutions.com/123Scan)
- D. [www.motorolasolutions.com/symbol123Scan](http://www.motorolasolutions.com/symbol123Scan)

**Answer: C**

**QUESTION NO: 40**

123Scan2 is an important tool that includes a wizard tool to guide users through a streamlined scanner set-up process. Once parameters are correctly tested and set, a user can perform all of the following options EXCEPT:

- A. Distribute the saved configuration via email
- B. Electronically download it via a USB or RS-232 cable to a scanner
- C. Generate a sheet of programming bar codes that can be scanned by a scanner
- D. Create a custom EPROM for duplication at the factory

**Answer: D**

**QUESTION NO: 41**

Your customer is looking for options that include remote scanner management. What are the primary interfaces that enable two-way communication (select TWO)?

- 
- A. USB CDC
  - B. USB OPOS
  - C. USB SNAPI
  - D. USB HID Keyboard

**Answer: B,C**

**QUESTION NO: 42**

Why would you use the image optimization screen on 123Scan2?

- A. To test image capture settings
- B. To change the beeper volume
- C. To enable the MicroPDF-417 symbology
- D. To verify the output of an ADF rule

**Answer: A**

**QUESTION NO: 43**

The Motorola OPOS Driver enables bar codes data communication between scanners and an OPOS compliant Point of Sale application through which of the following connection types (select TWO)?

- A. Universal Serial Bus (USB)
- B. RS-232
- C. IrDA
- D. Ethernet

**Answer: A,B**

**QUESTION NO: 44**

When creating a budgetary proposal for your customer it is a good idea to "bundle" the scanners and other items as a kit. Which of the following is NOT typically a reason to ship scanners in a kit?

- 
- A. A kit keeps the "system components" together for shipping and installation.
  - B. A kit can be easily priced as one item instead of multiple items,
  - C. A kit can include all cables and power supplies.
  - D. A kit can be programmed at the factory.

**Answer: D**

**QUESTION NO: 45**

You will be creating a customer proposal and Motorola Solutions has invested in a number of tools to assist you in this process. Some of the tools include rebranding support to increase the professionalism of your final documentation. Which of the following items is NOT typically provided by Motorola Solutions for inclusion in your proposal?

- A. Programming Scanner Sheets
- B. Device Management Options
- C. Spare Cables and scanner pricing
- D. Third-Party application integration
- E. Service and maintenance options

**Answer: D**

**QUESTION NO: 46**

During the proposal process you will be asked to provide a quote for scanner spares. In order to provide this you will need to know which of the following items (select TWO)?

- A. Total number of sites
- B. Scanner Help Desk information
- C. Types of barcodes being scanned
- D. Any Advanced Data Formatting Rules
- E. Number of scanners deployed at each site

**Answer: A,E**

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**QUESTION NO: 47**

Which of the following Motorola Solutions tools will help you create the final pricing for your customer proposal?

- A. 123Scan2
- B. ScanVisor
- C. SolutionBuilder
- D. Scanner at a Glance Guide

**Answer: C**

**QUESTION NO: 48**

You are working on gathering the Environmental Requirements from the customer. Which of the following would NOT be considered an Environmental parameter?

- A. Symbology type
- B. Scanning Distance
- C. Scanner Sealing Specification
- D. Drop Specification requirement

**Answer: A**

**QUESTION NO: 49**

Which of the following Motorola Solutions tools can you use to assist you in reducing installation costs for your scanner deployment?

- A. Solution Builder
- B. ScanVisor
- C. 123Scan2Programming Utility
- D. Scanner at a Glance Brochure

**Answer: C**

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**QUESTION NO: 50**

Motorola scanners can be programmed using Advanced Data Formatting rules. What is the primary purpose of Advanced Data Formatting?

- A. decoding poorly printed barcodes
- B. ensuring all data is not case sensitive
- C. customizing data before transmission to the host device
- D. scanning bar codes longer than 60 characters

**Answer: C**

**QUESTION NO: 51**

Motorola Solutions scanners all have a service/maintenance option available for inclusion with your proposal. These scanner service options protect the customer's investment and help reduce the Total Cost of Ownership. What is this service option from Motorola Solutions called?

- A. Warranty Support
- B. Quick Service
- C. Partner Ready Services
- D. Service From the Start
- E. Advanced Exchange Service

**Answer: D**

**QUESTION NO: 52**

You will be using Advanced Data Formatting (ADF) Wiles as a means of customizing data before transmission to the host application. You determine the ADF rules as follows:

**Criteria:** Code 39, length 12, data string = <129> in position 1  
**Actions:** Pad Data with Zeros to length <8>  
Send Up to <X>  
Send ASCII Key <space>

You program the scanner correctly and now scan a Code 39 bar code of 1299X1559828. Which of the following strings would be sent by the scanner to the host application?

- 
- A. 1299X1559828
  - B. 1299X<space>
  - C. 00001299 <space>
  - D. 000000001299X1559828
  - E. 15598280<space>

**Answer: C**

**QUESTION NO: 53**

When planning for a scanner pilot deployment, which of the following contain bar codes that can be used to perform basic scanner configuration at the end user site (select TWO)?

- A. Product Reference Guide
- B. Regulatory Guide
- C. Quick Start Guide
- D. Advanced Data Formatting Programmers Guide

**Answer: A,C**

**QUESTION NO: 54**

During a customer pilot you notice that the performance of your fixed reader has decreased over time. Which of the following are potential issues that would cause a reader's performance to decrease from the original installation (select TWO)?

- A. Poor or diminishing print quality
- B. The X Dimension of the bar code is too small for the reader
- C. The exit window of the reader is too small for the read distance
- D. The exit window of the reader is dirty

**Answer: A,D**

**QUESTION NO: 55**

Packages and items being scanned sometimes have multiple bar codes printed in close proximity.

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This can create situations where a user may not be able to identify which bar code was actually scanned and decoded. One feature of Motorola Solutions Digital Scanners is to only decode bar codes that are directly aligned under the laser cross hair. Which of the following User Preference Parameters can be used to enable this feature?

- A. Decode Aiming Pattern
- B. Power Mode
- C. Picklist Mode
- D. Trigger Mode

**Answer: C**

**QUESTION NO: 56**

Motorola's Digital scanners support a configuration feature called Power Mode (Parameter # 80h). Power mode supports two settings: Continuous on and Reduce Power Mode, When Power Mode is set to Reduced Power Mode the scanner:

- A. Waits for a command from the host before scanning.
- B. Waits 1 second after the trigger is pulled to ensure the operator is ready to scan.
- C. The scanner goes into low power mode after a specified period of time to save power.
- D. The scanner does not project an aiming pattern to save power?

**Answer: C**

**QUESTION NO: 57**

You are using the Image Optimization screen on 123Scan2. What is the purpose of using this screen?

- A. To test image capture settings.
- B. To change the beeper volume.
- C. To enable the MicroPDF-417 symbology.
- D. To verify the output of an ADF rule.

**Answer: A**