

# EXAMUNION

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**Exam** : **C2180-376**

**Title** : IBM WebSphere MQ V7.0,  
Solution Design

**Version** : Demo

1. Which new feature in WebSphere MQ V7.0 needs to be taken into account when WebSphere MQ solutions are deployed into mixed z/OS and distributed environments?

- A. Queue sharing groups are now available between z/OS and other platforms; however, at least one queue manager in the group must still be hosted on z/OS.
- B. The use of WebSphere MQ Explorer for the administration of z/OS based queue managers no longer requires a license for the Client Attachment Feature (CAF) for a limited number of users.
- C. WebSphere MQ Client applications from distributed environments can now directly connect to z/OS queue managers; the Client Attachment Feature (CAF) is no longer required.
- D. A WebSphere MQ Client implementation on z/OS is now available, so that full WebSphere MQ no longer needs to be installed on all z/OS systems that want to participate in message queuing.

**Answer: B**

2. The topic object for the topic x/y is defined with WILDCARD=PASSTHRU. Which of the following is the most appropriate use of a wildcard for this topic?

- A. Subscribe to topic x/y/#
- B. Publish the information to topic x/y/#
- C. Publish the information to topic x/y/+
- D. It is not possible to use a wildcard with this topic

**Answer: A**

3. An application creates documents in PDF format, which are subsequently transmitted via WebSphere MQ to a number of other servers in the network. Each server runs its own queue manager. The documents received by some servers are consistently corrupted, whereas on other servers the documents are intact. Other message traffic seems unaffected. What is the most likely source of this problem?

- A. The environment variable MQCCSID specifies an incorrect value on the affected servers.
- B. Incompatible message compression parameters are configured on the sending and receiving channel agents.
- C. The network connection to the affected servers is unreliable and a message retry exit was not specified on the sending channel agent.

D. The affected servers run different CCSIDs from the servers creating the documents and the message descriptor specifies MQMD.Format as QSTR? causing message conversion.?QSTR? causing message conversion.

**Answer: D**

4. An application is being designed which will send updates about customers to different applications.

Given the sensitive nature of the data, the sending application needs to manage which applications receive the data. Which of the following is the best solution to ensure this?

A. Apply the publish-subscribe paradigm (one-to-many).

B. Each application should have its own queue on which it will listen for updates

C. All applications should listen on the same queue and after processing the message should update its header so the last application process can remove it from the queue

D. All receiving applications should listen on the same queue and the sending application should send separate copies of the message with attributes which allow the receiving applications to search the queue for their own copies.

**Answer: B**

5. A solution designer is considering different API options for a new WebSphere MQ application. Only IBM supported WebSphere MQ programming options should be considered. Which one of the following is not supported by IBM?

A. XMS

B. JMS

C. Perl

D. WebSphere MQ classes for .NET

**Answer: C**

6. A solution designer has requested that several queues on a z/OS queue manager be defined with index type set to message ID, i.e., INDXTYPE(MSGID). Why would a designer use this setting?

A. It creates a permanent index of MSGIDs that are currently in use for this queue.

B. It allows MQGET commands to have significantly improved performance when getting messages by

message ID.

C. It ensures that any new MSGIDs are unique as well as making the retrieval of messages based on message ID more efficient.

D. The queue manager will keep an index of MSGIDs that have already been used to make sure that the message ID is unique when a new message is put.

**Answer: B**

7. There are multiple instances of a cluster queue. Which of the following is recommended practice for the default binding (DEFBIND) parameter?

A. Allow the local WebSphere MQ administrators to define default binding as they think best for each instance of the queue.

B. Require the WebSphere MQ administrators to set default binding to the same value for all instances of the queue in the cluster.

C. The solution designer should consult with the development team and local WebSphere MQ administrator to determine how best to configure default binding of each queue manager.

D. The best option is to accept the default setting for default binding on each queue manager, as it should have been given the optimal setting by its WebSphere MQ administrator.

**Answer: B**

8. Queue Managers QMA and QMB both have a cluster queue definition for Q1. A sending application resides on QMC, which is also part of the cluster. The messages being sent from QMC contain data from the same account that needs to be processed at the destination (Q1) in the same order that the messages were sent. Which one of the following is MOST LIKELY to enforce the sending order on the destination queue, assuming the message can be routed to the destination queue?

A. The sending application sends the messages for the account within the same unit of work

B. The sending application specifies the destination Queue Manager and Queue name on the open for Q1 and sends the messages for the account

C. The sending application opens Q1 with MQOO\_BIND\_ON\_OPEN and sends the messages for the account

D. Q1 is defined with DEFBIND(OPEN) and the sending application opens Q1 and sends the messages

for the account

**Answer: C**

9. A bus company is implementing a solution which will display in real-time the arrival information of the next bus on the bus stop sign. Each bus is sending information about its position at regular intervals. What is the best way of implementing this solution given that there is limited bandwidth for communication? The bus stop sign:

- A. subscribes to messages published by the bus
- B. queries a central system for bus position using SOAP over HTTP
- C. replicates its own database every few minutes with a database stored on a central system
- D. sends a message with a request every few minutes to a central system in order to query bus position.

All replies are compressed.

**Answer: A**

10. An application queue is triggered for trigger type of DEPTH. Following this, what action should the job or program that was started as a result of the trigger take before it ends, so that the queue will be triggered again the next time that trigger depth (TRIGDPTH) is reached?

- A. It needs to use MQSET or an ALTER QLOCAL command to reset triggering (TRIGGER) for the queue.
- B. It needs to reset trigger depth (TRIGDPTH) for the queue through an MQSET or ALTER QLOCAL command.
- C. It needs to reset trigger depth (TRIGDPTH) and triggering (TRIGGER) for the queue, using MQSET or an ALTER QLOCAL command.
- D. No action needs to be taken. The queue manager will create the next trigger message when the current depth of the queue once again reaches trigger depth (TRIGDPTH).

**Answer: A**

11. An application is required to retrieve rows from a relational database table and send them across WebSphere MQ to a remote queue manager, where a receiving application consumes them. After a successful MQPUT of a message, the corresponding row is to be deleted from the database. It is intended to run this application using the free WebSphere MQ Client. The delivery of each message is to be

guaranteed. Which of the following is true about this implementation?

- A. It cannot be done using the free WebSphere MQ Client; the Extended Transactional Client is required, since two phase commits are needed for this solution.
- B. It cannot be done using the free WebSphere MQ Client; a local queue manager is required to support the guaranteed delivery of the messages.
- C. This solution can be implemented using the free WebSphere MQ Client, provided that the receiving application can recognize and handle repeated delivery of the same message.
- D. This solution cannot be implemented using the free WebSphere MQ Client; persistent messaging is not supported by the free WebSphere MQ Client.

**Answer: C**

12. A solution developer is writing a C language application on a UNIX platform. There is a requirement for the transactions to be processed within syncpoint control. What is the MINIMUM required MQ component on the application platform to achieve this functionality?

- A. WebSphere MQ Client Installation
- B. WebSphere MQ Extended Transactional Client Installation
- C. WebSphere MQ Server Installation
- D. WebSphere MQ Server Installation with the XA capabilities configured

**Answer: A**

13. A master data management solution has been implemented for the enterprise. Updates with customer and product data need to be distributed to several applications. What is the BEST approach given that not all applications might be interested in every customer type?

- A. Use the publish/subscribe paradigm.
- B. Receive updates on application-specific queues. Message properties and selectors should be used for filtering.
- C. Browse a common queue for updates.
- D. Use a request-reply pattern and query the MDM (Master Data Management) application.

**Answer: A**

14. A new WebSphere MQ application with high volume requirements is being designed to run on Solaris. The solution designer is concerned about the performance of the application. The WebSphere MQ for Solaris V7 Performance Evaluation Report SupportPac provides all but one of the following types of information to the solution designer. Which is NOT discussed in this document?

A. Suggestions for tuning WebSphere MQ

B. Information that can be used to size the company new application  
Information that can be used to size the company? new application

C. Evaluation of the relative cost of one WebSphere MQ API vs. another in different scenarios

D. Evaluation of the relative cost of persistent messages vs. nonpersistent messages in different scenarios

**Answer: C**

15. Which of the following should generally be avoided if an application is being designed for optimal efficiency?

A. Make messages nonpersistent if they do not need to be recoverable.

B. Code programs to open and close queues, or connect and disconnect from the queue manager only once, if the queues or connection will be used again.

C. Bundle the data to be transmitted into as few messages as possible (e.g., rather than sending a hundred 1MB messages, send one 100MB message).

D. Group a batch of messages within a unit of work where appropriate, so that they can be committed all at once (e.g., get and put messages under syncpoint and commit them in groups of 10, rather than committing them individually).

**Answer: C**

16. In designing a solution with availability in mind, the designer is considering the following two alternatives, one using a cluster queue and the other using a shared queue. In each scenario, Queue Managers QMA and QMB will both be capable of running Application A. In the first scenario, Application A will run on QMA and QMB on Windows accessing cluster queue QA. In the second scenario, Application A will run on QMA and QMB on z/OS accessing shared queue QA. Which of the following describes the



availability scenarios in the situation where QMA fails?

- A. For Windows, the delivered messages on QA that Application A on QMA did not get to process are available for processing by Application A on QMB
- B. For z/OS, the delivered messages on QA that Application A on QMA did not get to process are available for processing by Application A on QMB
- C. For Windows, messages from QA that were in flight on QMA when it failed are made available for processing on QMB
- D. For z/OS, messages from QA that were in flight on QMA when it failed are unavailable for processing by QMB

**Answer: B**

17. A solution designer is evaluating distribution scenarios and wants to understand the circumstances where messages are not delivered as expected. Which of the following are reasons that a message is placed on the DLQ?

- A. A trigger monitor is unable to start the triggered program
- B. The destination queue is full when the program puts the message to the local queue
- C. The queue manager is quiescing when the program puts the message to the queue
- D. A sending message channel agent is unable to perform data conversion when required for the message
- E. The program tries to put a message to an invalid local queue

**Answer: A D**

18. An organization has a widely distributed online environment, where applications are connected via WebSphere MQ messaging. A business requirement is brought forward that certain mission critical applications record audit trail data which is to be collected in a central location. No information can be lost. A central data warehouse must be loaded daily with this information as soon as possible after end of business. Which of the following proposed solutions is best in terms of the requirement, reliability and overall performance? The audit trail data is:

- A. written to a file on the local file system and transmitted to the central audit trail server via reliable file transfer over WebSphere MQ.

- B. sent as a persistent WebSphere MQ message and forwarded to the queue manager of the central server asynchronously.
- C. inserted into a central database table via a remote access database client under control of the local WebSphere MQ transaction.
- D. inserted into a local database table under two phase commit using WebSphere MQ as the transaction manager and a bulk update is performed at end of day.

**Answer: B**

19. A suite of server applications is to be designed to support the graceful shutdown capabilities of WebSphere MQ implemented via the `fail if` feature. Which of the following best describes the use of this feature?

- A. Applications that have this feature activated can request an extra grace period of a configurable length that will allow them to complete critical processing before the queue manager will disconnect them.
- B. Applications using this feature will be informed of the queue manager quiescing via a completion code of `MQCC_FAILED` and a reason code of `MQRC_Q_MGR QUIESCING` (or `MQRC_CONNECTION QUIESCING`) and will be disconnected automatically. Applications are expected to periodically attempt reconnection.
- C. Using `FAIL_IF QUIESCING` options where valid with MQI calls, an application can finalize MQ processing, avoiding loss of data, before the queue manager is shut down.
- D. When a queue manager is configured with the `FAIL_IF QUIESCING` option and is being shut down, it will reject all MQI calls with a completion code of `MQCC_FAILED` and a reason code of `MQRC_Q_MGR QUIESCING` (or `MQRC_CONNECTION QUIESCING`) in order to assure fast and reliable termination.

**Answer: C**

20. A company has an MQI application on Windows that continuously browses a queue to identify a message before removing it for processing. The application has only one program reading the queue. The company is experiencing increased volumes, and there is a need to add additional instances of the

browsing program. Which of the following options could help with splitting and managing the workload across the multiple browsing programs?

- A. Use browse with lock
- B. Use browse with message under cursor
- C. Use browse with priority sequencing
- D. Use MQ cooperative browsing options
- E. Share an object handle across the programs

**Answer:** A D