

# T estpassportQ&A



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**Exam : E20-820**

**Title : CLARiiON Solutions Expert  
Exam for Technology  
Architects**

**Version : DEMO**

1. Your customer has come to you with concerns. They have increased their replication bandwidth from OC-3 to OC-12 and wonder what will happen to their recovery point objectives. What would your response be?

- A. RPO will compensate and balance RTO
- B. RPO will decrease
- C. RPO will increase
- D. Time objective will remain consistent

**Answer: B**

2. Which EMC products require a post-sales solution review by the EMC Solutions Validation Center (SVC)?

- A. EDL Replication, Open Replicator, and EmailXtender
- B. EDL Replication, SRDF/A, and RepliStor
- C. SRDF/A, Open Migrator, and MirrorView/A
- D. SRDF/A, RecoverPoint, and MirrorView/A

**Answer: D**

3. Which tool will let you best determine disk utilization of a UNIX server?

- A. diskpar
- B. iostat
- C. navcli
- D. netstat

**Answer: B**

4. Which tool will allow you to best determine a Windows server's performance?

- A. diskpart
- B. navseccli
- C. perfmon
- D. sar

**Answer: C**

5. There are several decisions that need to be made when designing a Business Continuity Solution.

What is one of the decision requirements for a good solution?

- A. All decisions should be calculated and derived from customer data
- B. Create specific device lists for modeling tools
- C. Industry standards and algorithms should be closely adhered to
- D. Provide customer with a standardized approach to Business Continuity

**Answer: A**

6. What are the requirements that must be met when collecting data that will be used as input for the ET Tool in an environment that is evaluating for MirrorView/A?

- A. I/O to the LUNs should be stopped until the collecting of the data has started.
- B. The update cycle must be an integer multiple of the collection interval.
- C. The update cycle should be set for a 10-minute interval at maximum.
- D. The update cycle should be set for a five-minute interval at maximum.

**Answer: B**

7. You are designing a CLARiiON disaster recovery environment for your customer. You want to accurately model and calculate the following based on the customer's input data and/or EMC Performance Data:

Bandwidth requirements (physical links)

Performance impacts at the logical volume level

Recovery point objectives

Which tool would best help you to accomplish this?

- A. ET Tool
- B. LOR Tool
- C. Navisphere Analyzer
- D. NSD

**Answer: A**

8. The ET Tool validates which component of a Business Continuity design?

- A. Cache utilization
- B. Data change activity
- C. Link latency
- D. SP utilization

**Answer: B**

9. The ET Wizard can be used to model which products?

- A. MirrorView, Open Replicator, Replication Manager
- B. MirrorView, RecoverPoint, SRDF
- C. MirrorView, RepliStor, SRDF
- D. SAN Copy, SRDF, MirrorView

**Answer: B**

10. You have been asked to produce a local replication design for the company. What are the basic types of information you need to gather before beginning your task?

- A. Inventory of hardware infrastructure, service level agreements, number of users
- B. Operational flow and objectives of each department
- C. Performance and workloads, availability, consistency
- D. Process for bringing applications online, fault detection resources, network infrastructure

**Answer: C**

11. A customer wishes to make a local copy of its 512 GB production LUN for a single test. The copy will be mounted to the production UNIX host. The customer requires a solution with minimal disruption to its application.

What do you recommend?

- A. Create a snapshot of the production LUN, and start a session. Add the session to the production host's storage group. Change the volume label and mount.
- B. Clone the production LUN. Fracture the clone. Add the clone to the production host's storage group. Change the volume label and mount.

C. Take the production LUN offline. Perform a full SAN Copy. Add the destination LUN to the production host's storage group, and restart the application.

D. Use an Incremental SAN Copy session on the production LUN. Add the destination LUN to the production host's storage group. Mount the volume.

**Answer: B**

12. Your customer is using SnapView to provide backup images (snaps and clones) of various host data across five CX3-40s. Recently they upgraded the CLARiiONs to FLARE release 26. Previously their scripts took care of the SnapView snap sessions and clone re-syncing, and ran without incident in the SnapView environment. Those same scripts now fail, with errors that the customer is saying are related to permissions.

What is the cause of the failure?

A. The agent.config file does not exist in the Navisphere Agent directory.

B. The agent.config file does not exist in the Navisphere CLI directory.

C. The Navisphere security file does not exist in the user home directory.

D. The usernames and hostnames do not appear in the CLARiiON SP privileged user list.

**Answer: C**

13. A customer with a CX3-20f has recently started using SnapView snapshots and immediately noticed an increase in write response times on the LUNs being snapped.

What should be the long-term write response time impact of the active snapshot sessions?

A. The impact will decrease over time.

B. The impact will fluctuate, decrease then increase over time.

C. The impact will increase over time.

D. The impact will stay the same over time.

**Answer: A**

14. A user fractures a clone and presents it to a secondary host. However, the data on the clone LUN does not contain the same data as the production host at the time of the fracture. What is the most likely cause?

- A. The application and file system buffers on the production host were not flushed prior to the fracture.
- B. The appropriate file system repair utilities on the production host were not performed prior to the fracture.
- C. The Consistent Fracture feature was not enabled on the source LUN.
- D. The file system on the production host must be unmounted prior to the fracture.

**Answer: A**

15. The customer starts a SnapView session of a production database LUN and log LUN. The snapshot is immediately activated and presented to a secondary host for testing purposes. The production host experiences significantly higher write response times, but the response time does improve over time. What is the most likely cause?

- A. A high number of disk crossings occur if the RLP LUNs are less than 10% of the size of the source LUN.
- B. The COFW activity is generally highest at the start of a session.
- C. The random nature of a database causes the host write I/Os to be smaller at the start of a session.
- D. The write cache rehit ratio is always smaller at the start of a session.

**Answer: B**

16. A customer's clone restore script has lines that perform the following operations:

1. Check that the clone is fractured
2. Flush the clone buffers
3. Flush the Source LUN buffers
4. Take the Source LUN offline
5. Start the reverse synchronization
6. Bring the Source LUN online

What would you add to the script to ensure more reliable operation?

- A. A delay between steps 2 and 3 to allow the clone buffers to complete flushing
- B. A delay between steps 3 and 4 to allow the Source LUN buffers to complete flushing
- C. A delay between steps 4 and 5 to allow the Source LUN to transition to the offline state
- D. A delay between steps 5 and 6 to allow the reverse synchronization to start

**Answer: D**

17. A customer keeps data on a 512 GB 4+4 RAID 1/0 LUN. The customer will use a SnapView snapshot for backup purposes, and keep the session active for the full 24-hour period between backups. You investigate its environment and determine the following:

The application generates random 4 KB I/Os, with a read/write ratio of 3:1

The average seek distance is 35 GB

The application generates a throughput of 200 IOPS for 10 hours per day and is idle for the remaining 14 hours

You need to estimate the size of the Reserved LUN Pool and the write throughput of the Reserved LUN Pool.

What is the best initial estimate?

A. 120 GB, with fifty 64 KB writes/s and one hundred 8 KB writes/s

B. 150 GB, with one hundred 128 KB writes/s

C. 200 GB, with two hundred 4 KB writes/s and fifty 64 KB writes/s

D. 512 GB, with two hundred fifty 4 KB writes/s

**Answer: A**

18. A customer has a new cost saving policy in place and as a result will have data center personnel present from 8 A.M. to 5 P.M. Backups will be performed during these hours. Backups currently take six hours to complete. You explain the benefit of SnapView in backup environments.

The customer wants a solution that will allow:

Its backup to be run during work hours

Minimal performance impact on its application

Recovery from corruption of application data in a short time (preferably under one hour)

You recommend the use of a clone, but the customer wants to use a snapshot. You explain the performance implications, but the customer wants to see numerical proof. The database LUN sees random 8 KB I/Os at a rate of 500 IOPS, with the read/write ratio at 4:1.

What calculations on the following do you present as validation?

Copy On First Write (COFW)



### Reserved LUN Pool (RLP)

- A. COFW during the day will cost 100 random 8 KB reads/s of the production LUN, and 200 64 KB writes/s and 100 8 KB writes/s to the RLP. Backup operations will cause additional sequential reads of the production LUN and RLP.
- B. COFW during the day will cost 100 random 64 KB reads/s of the production LUN, and 100 64 KB writes/s and 200 8 KB writes/s to the RLP. Backup operations will cause additional sequential reads of the Production LUN and RLP.
- C. COFW during the day will cost one random 8 KB read of the production LUN and two random 8 KB writes to the RLP for each 8 KB of data written to the database. Backup operations will cause additional sequential reads of the production LUN and RLP.
- D. COFW during the day will cost 100 sequential 64 KB writes/s of the production LUN and 200 64 KB writes/s to the RLP. Backup operations will cause additional random reads of the production LUN and RLP.

**Answer: B**

19. A company wants to use SAN Copy over a 10 Mb/s IP connection over a Brocade 7500 FC/IP router. The SAN Copy I/O size will be 512 KB and the round-trip latency is 0.425 second. After completing the design, it is determined that they will have bandwidth problems. They cannot increase the bandwidth.

What can be done to improve the data transfer between two sites?

- A. Change the SAN Copy buffer size to 2048 blocks
- B. Enable the Fast Write feature on the Brocade device
- C. Set the number of default sessions to 4
- D. Set the Throttle value to 10 for all SAN Copy sessions

**Answer: B**

20. A SAN Copy session (full) has been started to replicate a single 2 TB LUN in a customer environment:

Source LUN is offline

Source array and target array are connected to the same FC switch

A single 400 MB/s SAN Copy connection has been established

There is no contention on the link

The SP utilization of the source and target arrays is less than 30%

After one hour, 1.3 TB has been replicated. What action might be taken to increase the replication rate?

- A. Decrease the data compression value on the FC switch
- B. Increase the SAN Copy throttle value
- C. Increase the write cache value on the target array
- D. No action necessary: replication rate is close to maximum

**Answer: D**