Symmetrix Solutions Design Exam for Technology Architects

1. You need to model several SRDF/A workloads that require data consistency across all the sessions. How would you model the multiple SRDF/A sessions?

A. In SymmMerge, link them by creating a Logical Relationship

B. In BCSD, link them by creating a Composite Group

C. In SymmMerge, link them by creating a Composite Group

D. In BCSD, link them by creating a Logical Relationship

Answer(s): B

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2. A customer is running an application on older storage equipment that is about to be replaced. During refresh planning, the skew for the application is determined to be 98/2.

A. 5% EFD, 0% FC, 95% SATA

B. 98% EFD, 2% FC, 100% SATA

C. 2% EFD, 10% FC, 100% SATA

D. 3% EFD, 0% FC, 97% SATA

Answer(s): D

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3. A customer plans to migrate mainframe and UNIX hosts from another vendor's array to an EMC Symmetrix. You are responsible for the design of the VMAX 20K solution that is to be replicated to a metropolitan bunker site. There is no tolerance for data loss.

A. CMF/SMF data for mainframe hosts SAR data for HP-UX hosts

B. CMF/TPF data for mainframe hosts SAR data for Linux hosts

C. SMF/TPF for mainframe hosts SAR data for AIX hosts

D. SMF/TPF data for mainframe hosts IOSTAT data for AIX hosts

Answer(s): A

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4. What is the EMC recommended network quality for SRDF/A over GigE?

A. Less than 0.1% packet loss

B. Less than 0.25% packet loss

C. Less than 0.01% packet loss

D. Less than 1% packet loss

Answer(s): A

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5. You are designing the Symmetrix VMAX architecture for a DAS-to-SAN SQL Server migration. Currently all user databases reside on a single, locally-attached disk enclosure, mounted to "N:\". You have decided on RAID-5 protected 15,000 RPM drives for the new SQL database and RAID-1 for the transaction log.

A. 792

B. 1544

C. 396

D. 386

Answer(s): C

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6. Which TimeFinder feature allows you to use TimeFinder/Mirror commands to perform operations on RAID 6 protected BCVs?

A. TimeFinder/Clone compatibility mode

B. Symmetrix Differential Data Facility

C. TimeFinder/Mirror compatibility mode

D. TimeFinder/Clone emulation mode

Answer(s): B

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7. How is Open Replicator licensed?

A. Licenses are per host and are priced based on an agent license that is entered via command line.

B. Licenses are per-system and are priced by the raw capacity of the array. This is required for both the remote and control arrays.

C. Licenses are per host and are priced based on the amount on the total amount of storage capacity that is mapped to an FA port.

D. Licenses are per-system and are priced by the raw capacity of the array. This is required for the control array only.

Answer(s): D

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8. A customer is planning a new Microsoft Exchange 2010 environment on their Symmetrix VMAX. The customer wants to know how they can backup volumes containing passive mailbox database copies.

A. VSS plug-in that ships with Exchange 2010 or Replication Manager can be used

B. Only the VSS plug-in that ships with Exchange 2010 can be used.

C. To create Custom backup scripts.

D. To use Replication Manager or a third-party Exchange-aware VSS-based application.

Answer(s): D

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9. A proposed SRDF/S solution was modeled with BCSD. The model assumed that the Source array had 4 GigE ports. The RA utilization chart shows the maximum utilization at 70%. How many GigE ports should be recommended to ensure a successful implementation?

A. 6

B. 8

C. 4

D. 5

Answer(s): A

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10. You are designing an SRDF over GigE solution. What is a consideration to maximize TCP connection scaling?

A. Jumbo frames must be enabled on the all GigE ports on both the source and target arrays.

B. All GigE ports on the source array should be able to see all GigE ports on the target array.

C. The speed limit should be set on all GigE ports on both the source and target arrays.

D. The MTU size must be hard set in the bin file on both the source and target arrays.

Answer(s): B

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11. What is the most important advantage of implementing an ASM, Oracle 11g application on an existing Symmetrix array?

A. Added volumes to an ASM instance would rebalance all existing Oracle objects automatically.

B. Added volumes to the ASM disk group will automatically re-stripe the data across the target TimeFinder/Clone volumes.

C. Added new volumes to the ASM disk group will enable the DBA to issue an ASM rebalance command.

D. Added volumes to the ASM disk group will re-stripe the data across all target Oracle volumes.

Answer(s): A

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12. A customer needs to have copies of their production database accessible to their test and development team. The production data resides on a VMAX and test and development resides on a CLARiiON. Which tool is appropriate for data distribution?

A. SRDF

B. Open Replicator

C. Open Migrator

D. TimeFinder

Answer(s): B

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13. A Symmetrix VMAX has been configured with Dynamic Cache Partitioning. What criterion must be met for a cache slot to be eligible for donation?

A. The fall through time must be greater than the donation age.

B. The fall through time must be less than the donation age.

C. The cache slot must belong to a static partition.

D. There must be cache slots available in the default partition.

Answer(s): A

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14. What are the generally recommended RAID protections for Enterprise Flash Drives (EFD), Fibre Channel (FC) and Serial Advanced Technology Attachment (SATA) tiers?

A. EFD - RAID 6 (6+2)FC - RAID 1SATA RAID 5 (3+1)

B. EFD - RAID 5 (3+1)FC - RAID 1SATA - RAID 6(6+2)

C. EFD - RAID 6 (6+2)FC - RAID 5 (3+1)SATA RAID 1

D. EFD - RAID 1FC - RAID 5 (3+1)SATA RAID 6 (6+2)

Answer(s): B

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15. What is a result of designing SRDF/A with inadequate bandwidth?

A. Lower cache requirement

B. Lower minimum cycle time

C. Elongated cycle time

D. Elongated RTO

Answer(s): C

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16. A TimeFinder/Snap of production data must be recreated in a two hour cycle throughout the day. Which change tracker report will provide the best data for modeling a solution for the twenty-four hour period?

A. Delta report reset every twenty four hours

B. Delta report reset every two hours

C. SUM report over two hours

D. SUM report over twenty four hours

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17. A customer wants to protect production data using local and remote replication on a pair of VMAX arrays located 500 km apart. Both VMAX arrays are fully configured with virtually provisioned thin volumes.

A. TimeFinder/Snap and SRDF/S.

B. TimeFinder/Mirror and SRDF/A.

C. TimeFinder/Clone and SRDF/

D. TimeFinder/Clone and SRDF/S.

Answer(s): C

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18. Where is the pace set when using Open Replicator?

A. At the session level.

B. On the Switch Port.

C. At the Symmetrix FA port.

D. On the Host HBA.

Answer(s): A

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19. A Symmetrix VMAX hosts four applications. Each application is assigned a named dynamic cache partition. Two of the partitions are static and two are flexible. The write pending limit for each partition is set to 60%.

A. Host write activity to that partition will be throttled

B. Cache will be borrowed from the default partition

C. The write pending limit of the partition will be raised until it reaches 80%

D. Cache will be borrowed from a flexible partition

Answer(s): A

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20. Which environment type is thin provisioning friendly?

A. Administrative operations such as bad block detection

B. File systems that append data instead of reusing free space

C. Utilities that copy "raw" data such as dd in UNIX

D. Document and media repositories

Answer(s): D