NetApp Certified Implementation Engineer (NS0-520)

Question Exhibit

```
::>network interface show -fields data-protocol
```

1.

```
vserver      lif          data-protocol
-------------------------------------------
svm-iscsi1   lif1         nfs,cifs
svm-iscsi1   lif2         nfs,cifs
```

You are asked to serve iSCSI LUNs in an existing SVM on your AFF A220 using ONTAP 9.5. You verified that the iSCSI license is configured on your cluster and that the iSCSI protocol is enabled.
Referring to the exhibit, what is needed to allow hosts to log into the iSCSI target?

A. Create new LIFs with the iSCSI data protocol.

B. Create new igroups with the host IQNs.

C. Add iSCSI to the data protocol of the existing LIFs.

D. Map LUNs to the igroups.

Answer(s): D

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2. You are testing iSCSI LUN failover across a 4-node FAS9000 fabric-attached MetroCluster configuration. In this scenario, which front end configuration is required for non-disruptive host LUN failover between sites?

A. an intercluster LIF

B. a stretched Layer 2 network

C. Ipv6

D. a stretched VSAN

Answer(s): A

Question Exhibit

```
cl1::> ucadmin show
                                 Current  Current  Pending  Pending  Admin
Node          Adapter  Mode      Type     Mode     Type     Status
------------  -------  --------  -------  -------  -------  ------
01a           0e       cna       target   -        -        online
01a           0f       cna       target   -        -        online
01a           0g       cna       target   -        fc       online
01a           0h       cna       target   -        fc       online
01b           0e       cna       target   -        -        online
01b           0f       cna       target   -        -        online
01b           0g       fc        target   -        -        online
01b           0h       fc        target   -        -        online
```

3.

Referring to the exhibit, which two pairs of ports are currently configurable as FC SAN LIFs? (Choose two.)

A. 01b, 0h

B. 01a, 0g

C. 01a, 0h

D. 01b, 0g

Answer(s): D

---

4. You have a 4-node cluster with an AFF A300 HA pair and a FAS8200 HA pair. You plan on using the default storage efficiency settings. With inline data compaction, you estimate that you can save 6% of storage space. AFF A300 volumes that use under 5000 IOPS are moved to a FAS8200 using the volume move command.
In this scenario, what happens to the data after the volume is moved? (Choose two.)

A. The new written data is not compacted.

B. The existing data is compacted.

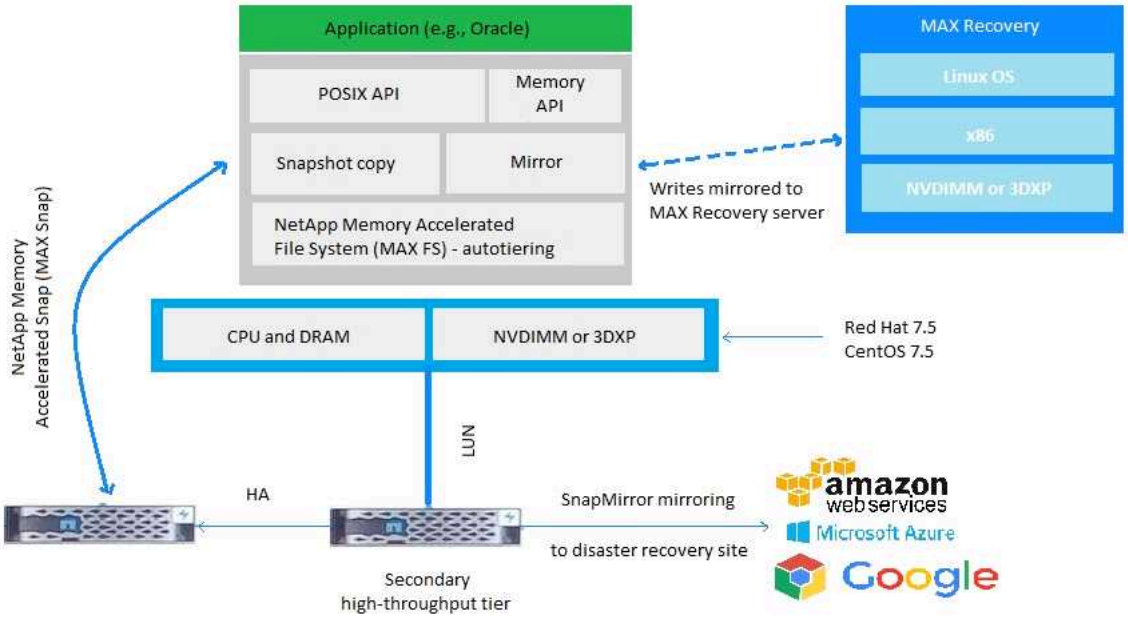
C. The new written data is compacted.

D. The existing data is not compacted.

Answer(s): A

5.

Question | Exhibit



You have a requirement to serve LUNs with under 200 microsecond latency using local server lass memory. You also are required to use a shared SAN.
Using MAX Data as shown in the exhibit, which two LUN access protocols are supported with this solution? (Choose two.)

A. iSCSI

B. FCoE

C. FC

D. NVMe

Answer(s): D

---

6. A company has 20 ESX hosts. Ten of the hosts are connected using FC, and the rest are connected over iSCSI. The FC host HBA queue depth is set to 32, and the iSCSI LUN queue depth is set to 64. The FC

hosts are now experiencing random connectivity issues.
In this scenario, what would be the reason for the disconnects?

A. The FC host has a lower queue depth.

B. According to the IMT, unsupported HBA firmware is in use.

C. All of the hosts are part of the same cluster.

D. The queue depth is not consistent across the cluster.

Answer(s): A

---

7. You want to ensure maximum performance of iSCSI LUNs on an AFF A220.
In this scenario, which two actions will accomplish this task? (Choose two.)

- [ ] A. Disable flow control.
- [ ] B. Configure virtual LAN (VLAN).
- [ ] C. Enable flow control.
- [ ] D. Enable jumbo frames.

Answer(s): C D

---

8. You are provisioning storage to an ESX host that uses iSCSI.
According to NetApp best practice, which three actions accomplish this task? (Choose three.)

- [ ] A. Enable the iSCSI service.
- [ ] B. Bind the iSCSI ports to the software iSCSI adapter.
- [ ] C. Install Virtual Storage Console (VSC) for VMware.
- [ ] D. Enable BGP on the switch.
- [ ] E. Configure MTU 1500 on the switch.

Answer(s): B C E

9.

Question | Exhibit

```
scaling::> run -node scaling-01 -command fcp topology show
Switches connected on adapter 0c:
Switch Name:      switch
Switch Vendor:    Cisco Systems, Inc.
Switch Release:   4.2(1)N1(1)
Switch Domain:    75
Switch WWN:       23:e9:00:0d:ec:b4:94:01

Port      Port       WWPN                    State       Type    Attached WWPN
vfc1  20:00:00:0d:ec:b4:94:3f             Offline   none
vfc2  20:01:00:0d:ec:b4:94:3f             Offline    none
vfc3  20:02:00:0d:ec:b4:94:3f             Offline    none
vfc4  20:03:00:0d:ec:b4:94:3f             Offline    none
vfc5  20:04:00:0d:ec:b4:94:3f             Offline    none
2/1   20:41:00:0d:ec:b4:94:00             Offline    none
2/2   20:42:00:0d:ec:b4:94:00             Online     F-port 50:0a:09:80:00:05:a2:4
2/3   20:43:00:0d:ec:b4:94:00             Online     F-port 50:0a:09:85:8d:9d:bf:c
2/4   20:44:00:0d:ec:b4:94:00             Online     F-port 50:0a:09:85:8d:ad:c0:0
```

A customer has an AFF A700 connected to a Cisco switch and has verified connectivity but cannot see any LUNs. The customer issued the run -node scaling-01 -command fcp topology show command to verify the connection.
Referring to the exhibit, what needs to be enabled on the Cisco switch?

A. Trunking needs to be enabled.

B. VSAN needs to be enabled.

C. NPIV needs to be enabled.

D. VFC needs to be enabled.

Answer(s): D

10.

Question | Exhibit

FC/FCoE and NVMe Adapters

Edit Status Refresh

WWWNN	Node Name	Slot	Data Protocols	WWPN	Status	Speed
50:0a:09:80:80:83:61:11	AFF_1	0e	fcp	50:0a:09:84:80:83:61:11	link not connected	auto
50:0a:09:80:80:83:61:11	AFF_1	0f	fcp	50:0a:09:83:80:83:61:11	link not connected	auto
50:0a:09:80:80:83:61:11	AFF_1	0g	fcp	50:0a:09:86:80:83:61:11	link not connected	auto
50:0a:09:80:80:83:61:11	AFF_1	0h	fcp	50:0a:09:85:80:83:61:11	link not connected	auto
50:0a:09:80:80:83:61:11	AFF_1	1a	fcp.fc_nvme	50:0a:09:81:80:83:61:11	online	auto
50:0a:09:80:80:83:61:11	AFF_1	1b	fcp.fc_nvme	50:0a:09:82:80:83:61:11	online	auto
50:0a:09:80:80:d3:61:00	AFF_2	0e	fcp	50:0a:09:82:80:d3:61:00	online	auto
50:0a:09:80:80:d3:61:00	AFF_2	0f	fcp	50:0a:09:81:80:d3:61:00	link not connected	auto
50:0a:09:80:80:d3:61:00	AFF_2	0g	fcp	50:0a:09:84:80:d3:61:00	online	auto
50:0a:09:80:80:d3:61:00	AFF_2	0h	fcp	50:0a:09:83:80:d3:61:00	link not connected	auto

A customer is using both FC and NVMe in a cluster. The customer needs to do some work on AFF_1.
Referring to the exhibit, what will happen?

A. The NVMe namespaces on AFF_2 will be available after takeover of AFF_1.

B. The FC LUNs that use cluster interconnect to access the LUNs on AFF_1 will be unavailable after failover.

C. The FC LUNs on node AFF_2 will be unavailable after failover of AFF_1.

D. The NVMe namespaces on AFF_1 will be unavailable after takeover by AFF_2.

Answer(s): C

11.

Question | Exhibit

```
cl1::> network fcp adapter show
                             Connection   Port     Admin   Operational
Node              Adapter    Established  Address  Status  Status
----------------  ---------  -----------  -------  ------  ----------------
node1             0e         false        0        up      link not connected
node1             0f         false        0        up      link not connected
node1             0g         false        0        up      link not connected
node1             0h         false        0        up      link not connected
node2             0e         false        0        up      link not connected
node2             0f         false        0        up      link not connected
node2             0g         false        0        up      link not connected
node2             0h         false        0        up      link not connected
```

You have an existing 2-node AFF A300 cluster with premium bundle licensing applied. You need to have consistently low front end latency, and have determined that NVMe satisfies this requirement.
Referring to the exhibit, which two actions would accomplish this task? (Choose two.)

A. Add a UTA2 adapter to each of the two AFF A300 nodes.

B. Add a 32 GB FC HBA to each of the two AFF A300 nodes.

C. Apply the license for FCP.

D. Apply the license for NVMe.

Answer(s): B

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12. You have a thin-provisioned LUN that was created by using the lun create -vserver vs1 - path /vol/vol1/lun1 -size 500G -ostype windows 2008 -space-reserve disabled -space-allocation disabled command. You verify that your Windows 2016 host reports 200 GB free on lun1. However, lun1 shows 0 bytes free on the storage cluster.
What should you do to solve this problem?

A. Change the LUN -space-allocation parameter to enabled.

B. Change the LUN -ostype parameter to windows_gpt.

C. Change the LUN -space-reserve parameter to enabled.

D. Rescan the LUN disk in your Windows host so that it will notify NetApp about the free space.

Answer(s): D

13.

Question | Exhibit

```
cluster01::> system hardware unified-connect show -node cluster01-01
                    Current  Current    Pending  Pending  Admin
Node          Adapter  Mode     Type       Mode     Type     Status
------------  -------  -------  ---------  -------  -------  ------
cluster01-01  0c       cna      target     -        -        online
cluster01-01  0d       cna      target     -        -        online
cluster01-01  1a       fc       target     -        -        offline
cluster01-01  1b       fc       target     -        -        offline
cluster01-01  1c       fc       initiator  -        -        online
cluster01-01  1d       fc       initiator  -        -        online
6 entries were displayed.
```

Referring to the exhibit, what happens when you change the type for port 1a from target to initiator?

A. The port type for 1a changes to initiator, and you must reboot the controller for the changes to take effect.

B. You receive an error message that you must take ports 1a and 1b offline before you can change the type.

C. You receive an error message that you must take the port 1a offline before you can change the type.

D. The port type for 1a and 1b changes to initiator, and you must reboot the controller for the changes to take effect.

Answer(s): A

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14. Which two features does Assymmetric Namespase Access (ANA) support? (Choose two.)

- ☐ A. multipathing
- ☐ B. LUN masking
- ☐ C. LUN hosting
- ☐ D. path management

Answer(s): A D

---

15. A customer that is using an AFF A220 has a problem with a host for a new FC LUN. Other LUNs on the same SVM are working properly. This LUN is not visible on the host.
Which configuration does the customer need to verify in their solution?

A. LUN mapping with igroup

B. host HBA speed settings

C. FC target port setting on NetApp node

D. FC switch zoning

Answer(s): C

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16. A customer has an existing 8-node cluster that consists of six FAS2650 nodes and two FAS2554 nodes. The customer wants to expand the cluster by adding two AFF A220 nodes.
Which resource would be used to determine whether this configuration is supported?

A. Interoperability Matrix Tool (IMT)

B. Config Advisor

C. OneCollect

D. Hardware Universe (HWU)

Answer(s): B

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17. You deployed a new SVM for FC access, and you used the vserver fcr, create -vserver svm1 - status-admin up command to enable FC service on the SVM. You then created the LIFs for the FC protocol. When you review the status of the LIFs, they show that the admin status is up, but the operational status is down. You have already verified that the ports are physically connected.
In this scenario, what is the next step to bring the LIFs up?

A. Use the network interface modify command to change the operational status of the LIFs.

B. Create at least one zone that contains your SVM LIF WWPNs and an initiator.

C. Verify that an FC license is applied on your system.

D. Disable the SAN switch port where your NetApp storage is connected.

Answer(s): B

18.

Question | Exhibit

Supported Adapter Cards - AFF A700 9.5 ONTAP

Platform Configuration: Single Chassis HA Pair

Priority	Category	Bus Type	Mktg Part No	Images	LED	Mig Part No	Description	Optical Module	Ca
1	NVRAM	IO Module	X93140A		View	111-03190	NVRAM10 32GB	Not Supported	Vi
2	Networking	IO Module	X91440A[2]		View	111-02590	2p 40GbE NIC Cu/Op	QSFP Optional	Vi
3	Block Access	IO Module	X91135A		View	111-03789	4p 32Gb FC SFP - Op	SFP + Included	Vi
4	Block Access	IO Module	X91134A		View	111-03431	2p 32Gb FC Op	SFP + Included	Vi
5	Block Access	IO Module	X91143A		View	111-02397	4p 16Gb|10Gb UTA2 Cu/Op	SFP + Optional	Vi

A customer wants to add a 2-port, 32 Gb FC card to support NVMe in an AFF A700 2-node cluster. Currently, there are cards in slots 1, 2, 4, 6, 8, and 9.
Referring to the exhibit, what is the number of the slot that should be used?

A. 10

B. 3

C. 5

D. 7

Answer(s): C

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19. Referring to the exhibit, which two elements are required for NVMe host access with ONTAP 9.5 and using supported AFF nodes? (Choose two.)

- [ ] A. You need 16 Gb FC HBAs installed in the AFF nodes.
- [ ] B. You must have the license installed for NVMe support in the cluster.
- [ ] C. You must have the license installed for FC support in the cluster.
- [ ] D. You need 32 Gb FC HBAs installed in the AFF nodes.

Answer(s): C D

---

20. A customer is required to encrypt iSCSI traffic across their public network.
In this scenario, which method will accomplish this task?

A. dot1q

B. IPsec

C. NVMe

D. CHAP

Answer(s): B
