



**Exam Code:** 000-237

**Exam Name:** Hacmp for Aix 5l

**Vendor:** IBM

**Version:** DEMO

## Part: A

1: Continuous availability is required for an application in a two-node cluster. There is one rotating resource group in the cluster, and the nodes are identical machines. Client telnet connections to the application cannot be broken because it takes 20 to 30 minutes to recycle the client workstations and transactions will be lost. What configuration best provides continuous connectivity to the application?

- A. IPAT using IP Replacement without MAC address takeover.
- B. IPAT using IP Aliasing and hardware MAC address takeover.
- C. None because continuous telnet connectivity cannot be provided with HACMP.
- D. Shared service IP address assigned to multiple network interface cards on each node.

**Correct Answers: C**

2: An existing cluster has an application node and a database node. Changes in the application require both nodes to have access to the other's data all of the time. Which facility managed by HACMP can be implemented with the least amount of impact?

- A. NFS
- B. AFS
- C. DFS
- D. GPFS

**Correct Answers: A**

3: Due to a recent change in government regulations, a customer needs to create two independent but synchronized copies of their data. These copies must be contained in separate storage devices a minimum of 100 km apart. The customer has capacity in two systems that meet the criteria, one with SSA disk and the other is FASTT. What facility can be used to manage this issue?

- A. Two independent copies of the data can be created and synchronized using the "HACMP/XD:HAGeo".
- B. The existing disks can be incorporated a single storage unit using the optional product "HACMP/XD:PPRC".
- C. AIX can create a mirrored logical volume across the two systems that would be accessible from either system.
- D. AIX can use the multi path IO subsystem to spread the information across the devices and keep the copies separated.

**Correct Answers: A**

4: An administrator mistakenly shutdown production after a failover because the service IP address was shifted from the normal production node to the standby node. What can be done to avoid this type of mistake in the future?

- A. Include the service IP address in the administrator's PS1 prompt.
- B. Alias the service IP address to the hostname in the /etc/hosts file.
- C. Define a persistent IP address with HACMP and make it a practice to use the persistent address for administration work.

D.Add a DNS entry to map the standby node name to the service IP address so telnet connections will be to the correct node.

**Correct Answers: C**

5: Which of the following statements is true about IPAT via IP replacement?

- A.Configuration of Hardware Address Takeover is supported.
- B.Fewer physical network interface cards are required in the cluster.
- C.It is the default for keeping a service IP labels highly available.
- D.Non-service IP labels must use different subnets than service IP labels.

**Correct Answers: A**

6: On an existing two-node cluster, the system is configured with RAID5 SSA as the shared disk. When adding a new node to the cluster, what must be taken into consideration?

- A.Nothing, SSA can support a maximum of 8 initiators per loop.
- B.The RAID5 implementation on SSA will only support two initiators per loop.
- C.SSA can only support four initiators per loop when using the fast write option.
- D.The RAID5 implementation can be used with three initiators only if the fast write cache option is used on all adapters.

**Correct Answers: B**

7: A customer is migrating from a third party managed disk subsystem to an IBM TotalStorage Enterprise Storage Server. Connection of the new storage server is complete, and it has been tested on all of the nodes in the three node HACMP cluster. How does the customer migrate to the new storage server with minimum down time?

- A.Shut down one node at a time and let the other node serve the application.
- B.Stop HACMP with the forced option and perform migration of the disks on one node, then restart HACMP.
- C.Stop both nodes and perform the migration all at once using standard AIX commands in parallel, then restart the cluster.
- D.Use C-SPOC to add the new disks to the cluster and migrate the information off the existing disks, then remove the old disks with C-SPOC.

**Correct Answers: D**

8: A customer wishes to use IPAT via IP replacement in a two-node mutual cluster. Each node has two Ethernet 10/100/1000 adapters. Throughout the planning session, the customer has asked questions about subnet and VLAN requirements for the intended network topology. Which of the following best describes the network requirements?

- A.The service IP addresses must be on a separate subnet and VLAN.
- B.The non-service and service IP addresses must be on the same subnet and on the same VLAN.
- C.All interfaces on a node must be in different subnets. All subnets must be on the same VLAN.
- D.One non-service and one service IP address must be on the same logical subnet. All interfaces must be on the same VLAN.

**Correct Answers: D**

9: A customer has a new computer room that will be used to house a new HACMP cluster. One of the outstanding features of the new computer room was the new large air conditioner. This unit has enough excess capacity for more than double the planned amount of equipment. Another feature of this computer room was the dual electric supplies to the room housed in two separate power panels. How would this impact the overall availability of the environment?

- A. Dual power feeds will make the installation difficult to manage and less highly available.
- B. The single air conditioner is a single point of failure and the customer should be made aware of the issue.
- C. The single air conditioner is a single point of failure and HACMP should be customized to compensate for the issue.
- D. A single power feed should be used to avoid ground loops in the computer room causing premature failure of the systems.

**Correct Answers: B**

10: While an electrician was adding additional circuits for the Data Center, the system running the database inadvertently powered down. The failover of the service IP labels and volume groups to the hot standby node completed as expected; however, the database did not start. The database log file indicated that the database was already started. What is the most likely cause of this problem?

- A. The shared logical volumes and filesystems did not have database permissions.
- B. There was a test instance running on the standby system that must be shutdown.
- C. The tablespaces had an indicator indicating that the database had not shutdown properly.
- D. The startup script for the highly available instance did not first perform cleanup operations.

**Correct Answers: D**

11: A customer environment consists of 10 volume groups and 4 physical networks. The customer desires the fastest possible failover for a two-node cluster. Which of the following configuration alternatives will provide the fastest failover?

- A. IPAT via IP Aliasing, default shared volume groups
- B. IPAT via IP Replacement, default shared volume groups
- C. IPAT via IP Aliasing, enhanced concurrent volume groups
- D. IPAT via IP Replacement, enhanced concurrent volume groups

**Correct Answers: C**

12: A database administrator wants a unique IP address for each of three instances of a database. Normally, all instances run on a large production node, but they may failover to different standby nodes according to the dynamic node priority configuration. What is the best way to obtain unique IP addresses for each of the three database instances?

- A. There is no way since this cannot be configured with HACMP.
- B. Use IP Replacement address takeover and define all service addresses on the same NIC.
- C. Use IP Aliasing for address takeover and define each alias in a separate resource group.
- D. Use EtherChannel to map the three alias IP addresses to the common service address defined to HACMP.

**Correct Answers: C**

13: During a planning session, a customer expresses concern about the behavior of the nodes when HACMP is installed. One department is reliant on an older piece of equipment that is critical to operations and must communicate to the database server. Previous network changes indicated that this piece of equipment does not support gratuitous ARP. How can HACMP best incorporate this restriction into the cluster design?

- A.The administrator must use Hardware Address Take over with HACMP.
- B.The clsmuxpd process and the contents of the /etc/cluster/ping\_client\_list can address the issue.
- C.HACMP does not have any facility to be compatible with older devices that have limited capabilities.
- D.HACMP can use either hardware address take over, or clinfo can update the arp cache of the clients when an adapter event occurs.

**Correct Answers: D**

14: During a customer planning session, the network administrator discusses the requirements of having a persistent MAC address associated with the IP Service address. How can this be accomplished using HACMP?

- A.Enable routed to handle dynamic route creation.
- B.Use IPAT via IP aliasing and define the required MAC address.
- C.Add the Service IP Label to the /etc/cluster/ping\_client\_list.
- D.Use IPAT via IP replacement and define the required MAC address.

**Correct Answers: D**

15: During a planning session, it is determined that both nodes in a mutual takeover cluster will provide NFS mounts to a variety of Unix hosts. What is the first consideration that must be taken into account when using NFS with HACMP?

- A.AIX Connections will need to be installed to provide the NFS shares.
- B.Mutual takeover clusters cannot provide NFS services from both nodes.
- C.The major number for the volume groups needs to be the same on both nodes.
- D.The no option rfc1323 must be set to 1 and the number of biods need to be adjusted to provide reasonable response times.

**Correct Answers: C**

16: During a planning session, it is determined that a three-node cluster (Node 'A', Node 'B', and Node 'C') will best meet the customer's application needs. Node 'B' will be a hot-standby fallover node for both Node 'A' and Node 'C' resource groups. A serial network for this cluster will require which connections?

- A.A single serial network between Node 'A' and Node 'B' and Node 'C'
- B.A point-to-point link between Node 'A' and Node 'C', and Node 'B' and Node 'C'
- C.A serial network between Node 'A' and Node 'C', and a serial network between Node 'B' and Node 'C'
- D.A point-to-point link between Node 'A' and Node 'B', Node 'B' and Node 'C', and Node 'A' and Node 'C'

**Correct Answers: D**

17: A customer has decided to implement VPN for all network traffic. How might this might affect HACMP?

- A. Only the heartbeat IP network can exist in a VPN style network.
- B. HACMP must have separate VPN's for all 'non-service' and 'service' adapter networks.
- C. If a VPN is used for IP traffic, the heartbeating must be done over disk connections.
- D. HACMP can exist in a VPN network environment, but special considerations must be addressed.

**Correct Answers: D**

18: A customer moved their application start routines from the inittab and placed them under HACMP control. During testing, the applications did not always start as desired. What is the best practice for the application start routines?

- A. Assume the system was stopped by a failure.
- B. Ensure the hostname parameter is set correctly.
- C. Assume the system was stopped by a graceful shutdown.
- D. Mount all volumes and file systems before running the application.

**Correct Answers: A**

19: A customer has an application that requires a serial connection for Electronic Data Interchange. What must be done to integrate the serial connection into an HACMP cluster?

- A. Use an RS232/422 serial Y cable.
- B. Alter the device settings to 9600 8/n/1 xon/xoff.
- C. Use a network based terminal server for the serial connection.
- D. Nothing because HACMP does not support native serial connection failovers.

**Correct Answers: C**

20: An enterprise has three nodes: - Node 'A' is a production database, - Node 'B' is a production application server, and - Node 'C' is a test and development node. Node 'C' is used by six programmers to develop and test software releases and new versions of the database, as well as to test new AIX PTFs. The CIO identified the production application as business critical and would like to make it highly available with HACMP. Application development and testing is not business critical. Which of the following describes the best solution?

- A. There is not an adequate solution because HACMP should not be configured in this environment without a dedicated standby node.
- B. Nodes 'A' and 'B' should be configured in a cluster with mutual failover of two cascading resource groups to provide both nodes will deliver acceptable response time with both resource groups.
- C. Nodes 'A' and 'C' should be configured in one cluster, and Nodes 'B' and 'C' in another cluster to prevent both the database and application server from falling over to Node 'C' at the same time.
- D. Nodes 'A', 'B', and 'C' should be configured in a cluster with Node 'C' the hot standby for both the database and application server resource groups. Workload Manager (WLM) must be configured on Node 'C' to prevent the application developers from over utilizing the CPU resources.

**Correct Answers: B**