

Exam Report: 9.13.10 Practice Questions

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Candidate: Garsteck, Matthew
Login: mGarsteck

Overall Performance

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Individual Responses

▼ Question 1:

Incorrect

Even if you perform regular backups, what must be done to ensure that you are protected against data loss?

- ☒ ~~Store the backup media in an onsite fireproof vault~~
- ☐ Restrict restoration privileges to system administrators
- ➡ ☐ Regularly test restoration procedures
- ☐ Write-protect all backup media

Explanation

The only way to ensure that you have protection against data loss is to regularly test your restoration procedures. This activity will reveal whether or not your backup process is functioning properly and whether or not your restoration and recovery procedures are accurate.

It is a good idea to store backup media in a fireproof vault, but it is a better idea to store it offsite. Restoration privileges should be restricted to trusted staff to prevent confidentiality violations. However, this does not address the issue of data-loss protection. Write-protecting backup media provides little real security for the stored data because anyone can flip the switch on the media to remove the protection.

References

LabSim for Security Pro, Section 9.13.

[All Questions SecPro2017_v6.exm BACKUP_RESTORE_01]

▼ Question 2:

Correct

When should a hardware device be replaced in order to minimize downtime?

- ☐ Once every year
- ☐ Only after its first failure
- ➡ ☒ Just before it's MTBF is reached
- ☐ When its performance drops below 75% efficiency

Explanation

Hardware should be replaced just before its MTBF (mean time between failures) is reached. This is the statistical average time that the device will operate before experiencing its first serious failure.

Once every year is not an appropriate replacement metric, as many devices have an MTBF of 3 to 10 years or more. Waiting until a device experiences a failure does not minimize downtime; instead, that is a scheme to minimize hardware costs by using every device until failure before replacement. Waiting for a performance efficiency drop is an ineffective solution, as most hardware failures do not provide such pre-failure symptoms.

References

LabSim for Security Pro, Section 9.13.

[All Questions SecPro2017_v6.exm BACKUP_RESTORE_02]

▼ Question 3: Incorrect

A system failure has occurred. Which of the following restoration processes would result in the fastest restoration of all data to its most current state?

- ☒ Restore the full backup and all incremental backups
- ➡ ☐ Restore the full backup and the last differential backup
- ☐ Restore the full backup and the last incremental backup
- ☐ Restore the full backup and all differential backups

Explanation

The fastest method for restoring data to its most current state is to restore the full backup and then the last differential backup. Differential backups include all changes since the last full backup (or other backup method that resets the archive bit).

Restoring the full backup and the last incremental backup is an incomplete restore because all of the incremental backups must be used. However, restoring several backup sets rather than a single set is slower. Only the last differential backup set needs to be used.

References

LabSim for Security Pro, Section 9.13.

[All Questions SecPro2017_v6.exm BACKUP_RESTORE_03]

▼ Question 4: Incorrect

Which of the following are backed up during an *incremental* backup?

- ☒ Only files that have changed since the last full backup.
- ☐ Only files that have changed since the last full or differential backup.
- ☐ Only files that are new since the last full or incremental backup.
- ➡ ☐ Only files that have changed since the last full or incremental backup.

Explanation

An incremental backup will only capture files that have changed since the last full or incremental backup. The primary attraction to this backup plan is that it requires less storage space and processing time to complete the backup. Restoration starts from the last full backup and then requires the loading of each subsequent incremental backup for a full restoration.

References

LabSim for Security Pro, Section 9.13.

[All Questions SecPro2017_v6.exm BACKUP_RESTORE_04]

▼ Question 5: Correct

Which of the following are backed up during a *differential* backup?

- ☐ Only files that have changed since the last full or differential backup.
- ➡ ☒ Only files that have changed since the last full backup.
- ☐ Only files that have been added since the last full or incremental backup.
- ☐ Only files that have changed since the last full or incremental backup.

Explanation

A differential backup will only capture files that have changed since the last full backup. This backup strategy can create a shorter restoration time than an incremental backup, but may consume more disk space, depending on the frequency of full backups and the amount and frequency of file changes. Restoration is a two-step process--load the last full backup first, and then finish the restoration by loading the last differential backup.

References

LabSim for Security Pro, Section 9.13.

[All Questions SecPro2017_v6.exm BACKUP_RESTORE_05]

▼ Question 6: Incorrect

Which backup strategy backs up all files from a computer's file system regardless of whether the file's archive bit is set or not and marks them as having been backed up?

☒ Incremental

☐ Copy

➡ ☐ Full

☐ Differential

Explanation

A full backup backs up all files from a computer's file system regardless of whether a file's archive bit is turned on or off. It also marks them as having been backed up.

Incremental and differential backups only back up files that have their archive bit set. The copy backup strategy is used by the NTBACKUP.EXE backup utility on Windows servers. It backs up all files regardless of whether the archive bit is set. However, it does not mark them as having been backed up.

References

LabSim for Security Pro, Section 9.13.

[All Questions SecPro2017_v6.exm BACKUP_RESTORE_06]

▼ Question 7: Incorrect

Which backup strategy backs up only files that have the archive bit set, but does not mark them as having been backed up?

☒ Full

➡ ☐ Differential

☐ Incremental

☐ Normal

Explanation

A differential backup backs up only files that have the archive bit set, but it does not mark them as having been backed up.

A full backup backs up all files regardless of whether the archive bit is set or not. An incremental backup backs up only files that have the archive bit set, but it marks them as having been backed up. A normal backup is a type of backup unique to the NTBACKUP.EXE utility on the Windows server. It also flags the files as having been backed up.

References

LabSim for Security Pro, Section 9.13.

[All Questions SecPro2017_v6.exm BACKUP_RESTORE_07]

▼ Question 8: Incorrect

Your organization uses the following tape rotation strategy for its backup tapes:

1. The first set of tapes is used for daily backups.
2. At the end of each week, the latest daily backup tape is promoted to the weekly backup tape.
3. At the end of each month, one of the weekly backup tapes is promoted to the monthly backup tape.

What kind of backup tape rotation strategy is being used?

☒ Differential

☐ Incremented tape

☐ Incremental

➡ ☐ Grandfather

Explanation

The organization is using a grandfather tape rotation scheme. This scheme involves promoting the latest son (daily) backup tape to become a father (weekly) backup tape. The latest father is promoted to become a grandfather (monthly) tape.

In the incremental tape rotation scheme, your latest backup session is stored on the oldest tape in your set. Differential is a type of backup, not a tape rotation method. In the incremented tape scheme, a set of numbered tapes is used until the end of a specified time period. Then the lowest numbered tape is removed from the set and archived. A new, high-numbered tape replaces it in the set.

References

LabSim for Security Pro, Section 9.13.

[All Questions SecPro2017_v6.exm BACKUP_RESTORE_08|/]

▼ Question 9: Incorrect

Your disaster recovery plan calls for tape backups stored at a different location. The location is a safe deposit box at the local bank. Because of this, the disaster recovery plan specifies that you choose a method that uses the fewest tapes, but also allows you to quickly back up and restore files.

Which backup strategy would best meet the disaster recovery plan for tape backups?

☐ Perform a full backup once per year and a differential backup for the rest of the days in the year.

➡ ☐ Perform a full backup once per week and a differential backup the other days of the week.

☐ Perform a full backup once per week and an incremental backup the other days of the week.

☒ Perform a full backup once per month and an incremental backup the other days of the month.

☐ Perform a full backup each day of the week.

Explanation

Performing a full backup once per week and a differential backup the other days of the week would best meet this disaster recovery plan. The full backup will back up all files, usually to one tape, but the backup process can be time consuming. The differential backup will back up all files since the last full backup. This backup process isn't as time consuming, and combining it with a full backup will only require two tapes to for a complete restore.

Performing a full backup each day would meet the requirement of using as few tapes as possible, but that backup process would be very time consuming each day.

Performing a full backup once per week and an incremental backup the other days of the week would be one of the fastest methods to back up files, but it would require many tapes to complete the restore. The incremental backup only backs up files added or changed since the last backup. Because of this, in order to do a complete restore of the file system, you would need a tape for each day of the week on which an incremental backup ran.

Performing a full backup once per month and an incremental backup the other days of the month would be the fastest method to backup files, but it would require many tapes to complete the restore. The incremental backup only backs up files added or changed since the last backup. Because of this, in order

to do a complete restore of the file system, you would need a tape for each day of the month on which an incremental backup ran. Performing a full backup once per year with a differential backup for the rest of the days in the year would only require two tapes for a complete file system restore, but backing up the file system would become very time consuming. The differential backup would back up everything since the last full backup.

References

LabSim for Security Pro, Section 9.13.

[All Questions SecPro2017_v6.exm BACKUP_RESTORE_09]

▼ Question 10: Correct

What does an *incremental* backup do during the backup?

- ➡ ☒ Backs up all files with the archive bit set and resets the archive bit.
- ☐ Backs up all files regardless of the archive bit and resets the archive bit.
- ☐ Backs up all files with the archive bit set and does not reset the archive bit.
- ☐ Backs up all files regardless of the archive bit and does not reset the archive bit.

Explanation

An *incremental* backup only backs up files with the archive bit set (files that have been modified). After backing up the file, the archive bit is reset. The primary attraction to this backup plan is that it requires less storage space and processing time to complete the backup. Restoration starts from the last full backup and then requires the loading of each subsequent incremental backup for a full restoration.

A *full* backup backs up all files regardless of the archive bit and resets the archive bit. A *copy* backup backs up all files without resetting the archive bit. A *differential* backup backs up all files with the archive bit set but does **not** reset the archive bit.

References

LabSim for Security Pro, Section 9.13.

[All Questions SecPro2017_v6.exm BACKUP_RESTORE_10]

▼ Question 11: Incorrect

What does a *differential* backup do during the backup?

- ☐ Backs up all files regardless of the archive bit and does not reset the archive bit.
- ☐ Backs up all files regardless of the archive bit and resets the archive bit.
- ☐ Backs up all files with the archive bit set and resets the archive bit.
- ➡ ☐ Backs up all files with the archive bit set and does not reset the archive bit.

Explanation

A *differential* backup backs up all files with the archive bit set (files that have been modified), but does not reset the archive bit. This backup strategy can create a shorter restoration time than an incremental backup, but may consume more disk space, depending on the frequency of full backups and the amount and frequency of file changes. Restoration is a two-step process--load the last full backup first, and then finish the restoration by loading the last differential backup.

An *incremental* backup only backs up files with the archive bit set. A *full* backup backs up all files regardless of the archive bit and resets the archive bit. A *copy* backup backs up all files without resetting the archive bit.

References

LabSim for Security Pro, Section 9.13.

[All Questions SecPro2017_v6.exm BACKUP_RESTORE_11]

▼ Question 12: Incorrect

Your network uses the following backup strategy:

- Full backups every Sunday night
- Incremental backups Monday night through Saturday night

On a Thursday morning, the storage system fails. How many restore operations will you need to perform to recover all of the data?

- ☐ 1
- ☐ 2
- ☒ 3
- ➡ ☐ 4
- ☐ 5

Explanation

You will need to perform four restore procedures:

1. Restore the full backup from Sunday
2. Restore the incremental backup from Monday
3. Restore the incremental backup from Tuesday
4. Restore the incremental backup from Wednesday

If you did a full backup every night, you would restore only a single backup (Wednesday's backup). If you did full backups with differential backups, you would restore the last full backup along with the last differential backup.

References

LabSim for Security Pro, Section 9.13.

[All Questions SecPro2017_v6.exm BACKUP_RESTORE_12]

▼ Question 13: Incorrect

Your network uses the following backup strategy:

- Full backups every Sunday night
- Differential backups Monday through Saturday nights

On Thursday morning, the storage system fails. How many restore operations will you need to perform to recover all of the data?

- ☐ 1
- ➡ ☐ 2
- ☐ 3
- ☒ 4
- ☐ 5

Explanation

You will need to perform two restore procedures:

1. Restore the full backup from Sunday
2. Restore the differential backup from Wednesday

If you did a full backup every night, you would restore only a single backup (Wednesday's backup). If you did full backups with incremental backups, you would restore the last full backup along with each incremental backup.

References

LabSim for Security Pro, Section 9.13.

[All Questions SecPro2017_v6.exm BACKUP_RESTORE_13]

▼ Question 14: Incorrect

Your network performs a full backup every night. Each Sunday, the previous night's backup tape is archived.

On a Wednesday morning, the storage system fails. How many restore operations will you need to perform to recover all of the data?

- ➡ ☐ 1
- ☐ 2
- ☐ 3
- ☒ 4
- ☐ 5
- ☐ 6

Explanation

You will need to perform a single restore procedure; simply restore the last full backup from Wednesday to restore all of the data.

The fact that you archive one backup each week is irrelevant to restoring the latest data. The archived copy is only used to restore something to a specific point in time. If you had used full and differential backups, you would restore the last full and last differential backups. If you had used full and incremental backups, you would restore the last full and each subsequent incremental backup.

References

LabSim for Security Pro, Section 9.13.

[All Questions SecPro2017_v6.exm BACKUP_RESTORE_14]