

## b UNIVERSITÄT RERN

## S/MIME: Question 5

- S/MIME provides authentication, confidentiality, compression, and email compatibility. Which ones of the following statements about these four services are true and which ones are false? Justify.
  - S/MIME uses public key cryptography for content encryption in order to ensure confidentiality.
  - S/MIME requires that the signing is done first followed by the message encryption.
  - S/MIME uses X.509 public-key certificates.
  - Lossy compression can be applied in any order with respect to the signing and message encryption operations.
  - S/MIME provides 7-bit encoding for converting a stream of 8-bit octets to a stream of ASCII characters while some electronic mail systems accept only blocks of ASCII characters.