

DIGITAL ENVELOPES

SUMMARY	
Matched Branch:	0
Partially Matched Branch:	0
Mismatched Branch:	8
Extra Branch:	4
Total Match:	16.67 %
Concept Match:	20.0 %
Link. Phr. Match:	0.0 %
Misconception:	100.0 %
Hierarchy Match:	0.0 %

Grade: 5.5%

represented  
by

Bob and Alice  
confidentially  
messaging

Symmetric encryption requires exchanging keys before sending and receiving messages securely

Protects a message without first exchanging the same secret key between sender and receiver

Encrypt that message using symmetric encryption the one-time key

Bob wishes to send a confidential message to Alice without sharing a symmetric secret key

Encrypt the one-time key using public-key encryption with Alice's public key

Attach the encrypted one-time key to the encrypted message and send it to Alice

Just Alice can decrypt the one-time key, and if Bob obtained Alice's public key by means of Alice's public-key certificate, then Bob is assured that it is a valid key

Prepare a message and generate a random symmetric key to be used this one time only