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Assignment -1, Q

1 List of all symmetric key algorithms

→ There are two types of symmetric encryption algorithms

1) Block algorithms:-

→ Set lengths of bits are encrypted in blocks of electronic data with the use of a specific secret key. As data is being encrypted, the system holds the data in its memory as it waits for complete blocks.

2) Stream algorithms:-

→ Data is encrypted as it streams instead of being retained in system's memory

→ Example

→ AES (Advanced Encryption Standard)

→ DES (Data Encryption Standard)

→ IDEA (International Data Encryption Algorithm)



→ Blow fish (Drop-in replacement for DES or IDEA)

→ RC4 (Rivest cipher 4)

→ RC5 (Rivest cipher 5)

→ RC6 (Rivest cipher 6)



2 List all asymmetric key Algorithms

→ Asymmetric cryptography a branch of cryptography where a secret key can be derived in two parts..

→ Ed25519 signing

→ X25519 key

→ Ed448 signing.

→ X448 key exchange

→ RSA

→ Diffie - Hellman key exchange.

→ DSA

→ Key serialization.

→ S



(3) List the algorithms for message digest

→ Message digest algorithms is a widely used hash function producing a 128-bit hash value.

→ list of message digest algorithms

→ MD2 → The MD2 message digest Algorithm as define in RFC 1319

→ MD5 → The MD5 message digest Algorithm as define in RFC 1321

→ SHA-1, SHA-224, SHA-256, SHA-384, SHA-512, SHA-512/256

→ SHA3-224, SHA3-256, SHA3-384, SHA3-512