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# Assignment -1

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1. List all symmetric key Algorithms

⇒ AES (Advanced Encryption standard)

DES (Data Encryption standard)

IDEA (International Data Encryption Algorithm)

Blowfish (Drop-in replacement for DES or IDEA)

RC4 (Rivest Cipher 4)

RC5 (Rivest Cipher 5)

RC6 (Rivest Cipher 6)

2. List all asymmetric encryption key algorithms

⇒ Ed25519 signing.

X25519 key exchange.

Ed448 signing.

X448 key exchange.

Elliptic curve cryptography.

RSA.

Diffie-Hellman key exchange.

DSA.

Key serialization

Asymmetric Utilities

3. List the algorithms for message digest

⇒ SHA3-512, SHA-384, SHA, SHA3-384,

SHA-224, SHA-512/256, SHA-256,

BLAKE2, SHA-512/224, SHA3-256,

SHA-512, MD5, SHA3-224



## Assignment - 2

1. Discuss briefly (one-two).

a) PII (personally identifiable information)

⇒ PII is any information about an individual maintained by an agency, including any information that can be used to distinguish or trace an individual's identity, such as name, social security number, date and place of birth, mother's maiden name, or biometric records. They all define and classify different pieces of information under the PII umbrella.

b) US Privacy Act of 1974

⇒ The Privacy Act of 1974, as amended, 5 U.S.C. § 552a, establishes a code of fair information practices that governs the collection, maintenance, use, and dissemination of information about individuals that is maintained in system of records by federal agencies.

c) FOIA

⇒ The freedom of information Act (FOIA) generally provides that any person has the right to request access to federal agency records or information except to the extent the records are protected from disclosure by any of nine exemptions contained in the law or by one of three special law enforcement record exclusions.



#### d) FERPA

⇒ The Family Educational Rights and Privacy Act (FERPA) is a US federal law that protects the privacy of students' education records, including personally identifiable and directory information. FERPA was enacted to ensure that parents and student age 18 and older can access those records.

#### e) CFAA

⇒ The Computer Fraud and Abuse Act (CFAA) was enacted in 1986 as an amendment to the first federal computer fraud law, to address hacking. Over the years, it has been amended several times, most recently in 2008, to cover a broad range of conduct far beyond its original intent.

#### f) COPAA

⇒ The Council of Parent Attorneys and Advocates (COPAA) is an independent national American association of parents of children with disabilities, attorneys, advocates, and related professionals who protect the legal and civil rights of students with disabilities and their families. COPAA has a 22-member Board of Directors who run the organization.



### g) VPPA:

This paper serves as an introduction to the virtual power purchase agreement (VPPA) its place in the off-site renewable energy procurement market, how the VPPA works, and why VPPAs have been a popular instrument in the United States thus far. This paper is aimed at renewable energy buyers who are seeking to understand the VPPA mechanism.

### h) HIPAA

The health insurance portability and Accountability Act of 1996 (HIPAA) is a federal law that required the creation of national standards to protect sensitive patient health information from being disclosed without the patient's consent or knowledge. The US Department of Health and Human Services (HHS) issued the HIPAA Privacy Policy Rule to implement the requirements of HIPAA.

### i) GLBA

The Gramm Leach Bliley Act is also known as the financial modernization Act of 1999. It is a United States federal law that requires financial institutions to explain how they share and communicate to their customers sensitive data.



### j) PCI DSS

The Payment card industry data security standard (PCI DSS) is an information security standard for organization that handle branded credit cards from the major card schemes. The PCI standard is mandated by the card brands but administered by the Payment card industry security standard council. The standard was created to increase controls around cardholder data to reduce credit card fraud.

### k) FCRA

The Foreign Contribution (Regulation) Act, 2010 is an act of the Parliament of India by the 42nd Act of 2010. It is a consolidating act whose scope is to regulate the acceptance and utilisation of foreign contribution or foreign hospitality by certain individuals or association. for matters connected therewith or incidental thereto.

### l) FACTA

The Fair and Accurate Credit Transactions Act (FACTA) is a federal law enacted by the United States Congress in 2003. Its stated purpose was to enhance consumer protections, particularly in relation to identity theft. The most well known feature of the Act is that it gave all citizens of the U.S. free access to their credit reports once per year through the website.