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Security traid CIA:

Confidentiality — Integrity — Availability (triangle)

Types of cyber Attack:

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                Types of cyber Attack
          |              |                |
   Technical Attack   Phycological    Physical Attack
                      based attack
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Technical Attack → Malicious software, DOS, DDOS, SQL

Phycological based attack → Social Engineering, Phishing, Baiting, Vishing, Smishing, Tai...

Physical Attack → Physical theft, Dumpster Driving, MM, Destro Comp...
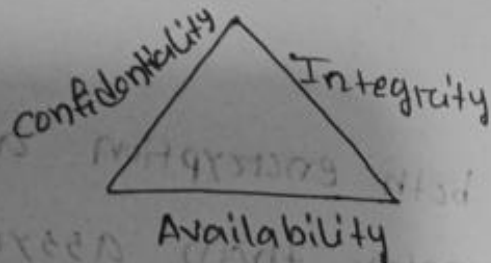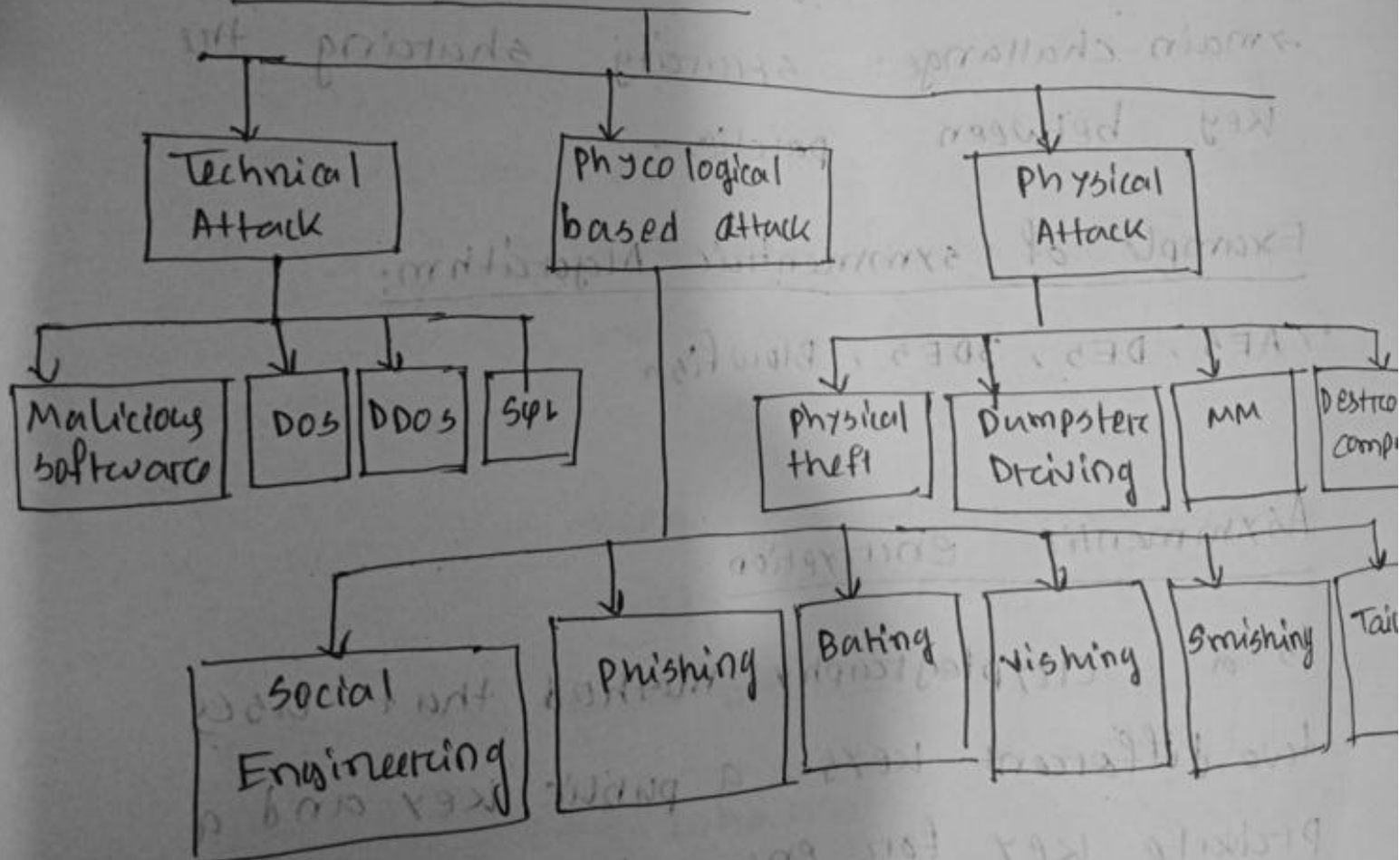
Symmentric encryption:

Is a type of cryptography where the same key is used for both encryption and decryption of data.

key points:

→ single key is for both encryption and decryption.

→ faster and less complex than assymtric

→ suitable for large amount of Data

→ main challange: security, sharing the key between parties.

Example of symmentric Algorithm:

→ AES, DES, 3DES, Blowfish

Asymmentic encryption:

Is a cryptography method that uses two different keys a public key and a private key for encryption and decryption.

How it works:

→ sender encrypts the plain text using the receivers public key.

→ only the receivers private key can decrypt the ciphertext.

→ This ensures that only the intended receiver can access the information.

Example:

RSA, ECC, DSA

Steganography:

is the pactice of hiding secret information within an ordinary, non-secret file or message to avoid detection.

How it work:

→ A secret message is embedded inside other file using special techniques.

→ The file looks normal to a casual obser

→ only someone who knows the method can extract the hidden data.