# Tutorial 1

1) Write a short note on

a) Security Attacks

Cyber security attacks refer to the sets of actions that the threat actors perform to gain any unauthorised access, cause damage to systems/computers, steal data, or compromise the computer networks.

b) Security Mechanism

Security mechanisms deals with prevention detection and recovery from a security attack. Prevention involues mechanisms to prevent the computer from being damaged.

2) Draw & explain the Model for Network Security.
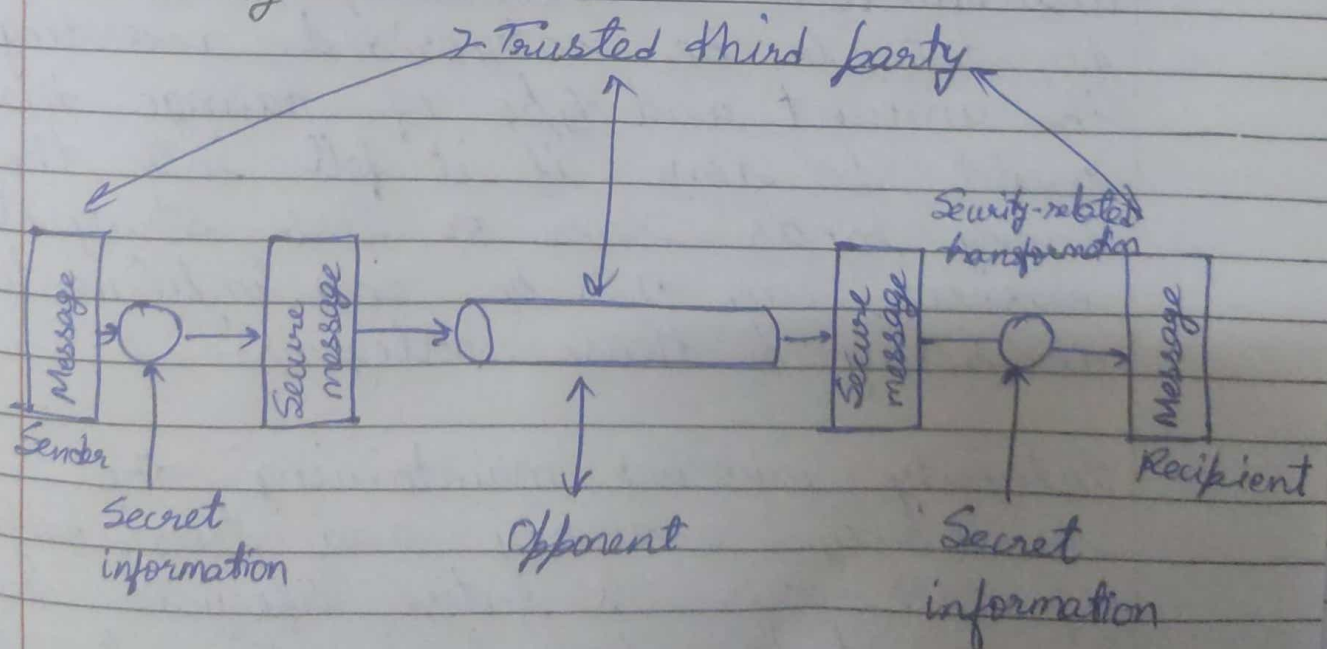
Any security service would have the three components discussed below.

i) A security-related transformed on the information to be sent.

ii) Some secret information stored by the two principals and it ~~is~~ is hoped, unknown to the opponent.

iii) A trusted third party may be needed to achieve secure transmission.

3) Explain CIA triads.

Confidentiality is roughly equivalent to privacy. It measures are designed to prevent sensitive information from unauthorised access attempts. It is common for data to be categorised according to the amount and type of damage that could be done if it fell into the wrong hands. More or less stringent measures can then be ~~imp~~ implemented according to those categories.

Integrity involves maintaining the consistency, accuracy and trustworthiness of data over its entire lifecycle. Data must not be changed in transit, and steps must be taken to ensure data

cannot be altered by unauthorised people.

Availibility means information should be consistently and readily accessible for authorised parties. This involves properly maintaining hardware & technical infrastructure and systems that hold & display the information.