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## CN Revision Test-3

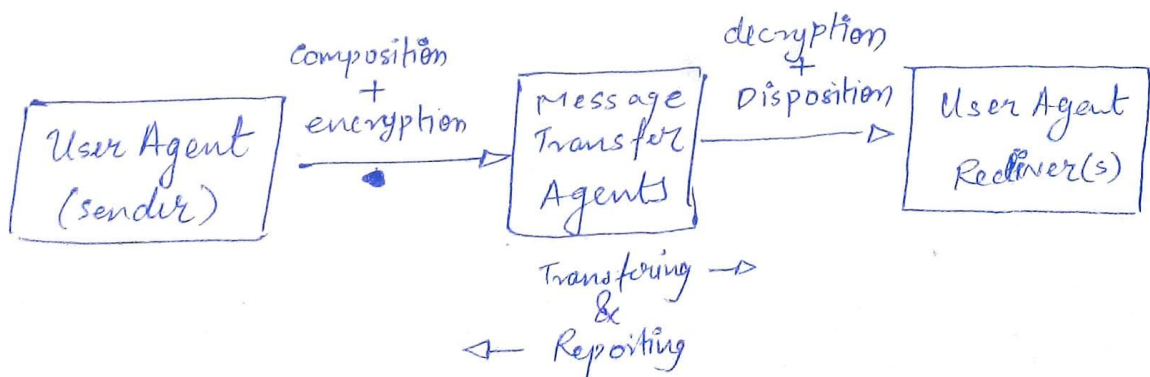
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Q1.) Write notes on file transfer protocol. (FTP)

Q2.) Write notes on Electronic Mail.

### A2) Electronic Mail

- ~ Electronic mail or email in short is an <sup>online</sup> service that is provided by companies like Google, Microsoft, Proton etc.
- ~ This service helps people to communicate through the electronic medium, which is considerably fast and relatively reliable.
- ~ With today's technology it is possible to set up one's own email server with the relevant protocols.
- ~ The mailing system looks somewhat like this:



~ The mail protocols that are used to transfer emails are

(i) SMTP - Simple Mail Transfer Protocol

~ It by default uses the default non-encrypted port.

~ A daemon is a process that can run without a header and usually runs in the background.

~ This is used to listen to the port 25.

(ii) POP3 - Post Office Protocol v3

~ The default non-encrypted port is 110.

(iii) IMAP - Internet Message Access Protocol.

~ The default non-encrypted port is 143.

~ The user Agent are usual clients like Gmail, Thunderbird, MailSpring which can send received and store messages.

~ The transfer agents are the network layer & datalink layer devices that ensures secure transmission of the e-mails.

A1. → File Transfer Protocol (FTP)

~ It is a standard network protocol used to share digital files between client & server.

~ FTP supports, text files, ascii characters, binary files.

- ~ The FTP server runs on port 21.
- ~ In active mode the FTP client starts to listen for incoming data connection.
- ~ On the other hand in passive mode the client sends a command to the server to <sup>receive</sup> ~~receive~~ its port number (with IP). And then it uses this to open a data connection.
- ~ FTP provides both verified (with username & password) and anonymous login.
- ~ Due to having as stateful (or state sensitive) control over the FTP, it has trouble transferring transient objects.
- ~ This is overcome by the HTTP protocol.