Q3) List the entities of Mobile IP and describe data transfer from a mobile node to a fixed node and vice versa. Evaluate why and ~~were~~ where is encapsulation needed?

Ans] The entities of Mobile IP are:

1. Mobile Node (MN)
2. Home Network
3. Home Agent
4. Home Address.
5. foreign network.
6. foreign Agen (FA).
7. Correspondent Node (CN):
8. Care of Address (COA).

→ Correspondent node sends the data to the mobile node. Data packets contains correspondent node's address (source) and home address. Packets reaches to the home agent. But now mobile node is not in the home network, it has moved into the foreign network. foreign agent sends the COA to the home

agent to which all the packets should be sent. Now, a tunnel will be established between the home agent and the foreign agent by the process of tunneling.

Tunneling establishes a virtual pipe for the packets available between a tunnel entry and an endpoint. It is the process of sending a packet via a tunnel and it is achieved by a mechanism called encapsulation.

Now, home agent encapsulates the data packets into new packets in which the source address is the home address and destination is the care-of-address and sends it through the terminated tunnel to the FA. FA, on other side of tunnel receives the data packets, decapsulates them and sends them to the MN. MN in response to the data packets received sends a reply in response to FA. FA directly sends the reply to the correspondent node.