What is ARP?  
Address Resolution Protocol (ARP) is a network protocol, which is used to map a network layer protocol address (IP Address) to a data link layer hardware address (MAC Address). ARP basically resolves IP address to the corresponding MAC address.

ARP works at which layer and Why?  
ARP works at data link layer (Layer 2). ARP is implemented by the network protocol driver and its packets are encapsulated by Ethernet headers and transmitted.

Explain the use of ARP?  
If a host in an Ethernet network wants to communicate with another host, it can communicate only if it knows the MAC address of other host. ARP is used to get the Mac address of a host from its IP address.

What is an ARP Table (cache)?  
ARP maintains  a table that contains the mappings between IP address and MAC address. This Table is called ARP Table.

What is the Source & Destination IP address in ARP Request and ARP Reply packet?  
ARP Request  
Source - Mac Address of Host which transmitted the ARP Request packet. (Senders MAC address)  
Destination - FF:FF:FF:FF:FF:FF  Broadcast

ARP Reply  
Source - Mac address of Host replying for ARP Request.  
Destination - Mac Address of Host which generated the ARP Request packet.

What is the Size of an ARP Request and ARP Reply packet?  
The size of an ARP request or ARP reply packet is 28 bytes.

How can we differentiate between a ARP Request packet and a ARP Reply packet?  
We can differentiate ARP request packet from an ARP reply packet using the 'operation' field in the ARP packet. For ARP Request it is 1 and for ARP Reply it is 2.

What is Proxy ARP?  
Proxy ARP is the process in which one system responds to the ARP request for the another system.  
Example - Host A sends an ARP request to resolve the IP address of Host B. Instead of Host B, Host C responds to this ARP request.

What is Gratuitous ARP? Why it is used?  
When a Host sends an ARP request to resolve its own IP address, it is called Gratuitous ARP. In the ARP request packet, the Source IP address and Destination IP address are filled with the Same Source IP address itself. The Destination MAC address is the Broadcast address (FF:FF:FF:FF:FF:FF).  
Gratuitous ARP is used by the Host after it is assigned an IP address by DHCP Server to check whether another host in the network does not have the same IP address. If the Host does not get ARP reply for a gratuitous ARP request, It means there is no another host which is configured with the same IP address. If the Host gets ARP reply than it means another host is also configured with the same IP address.

What is Reverse ARP?  
Reverse ARP is used to obtain Device's IP address when its MAC address is already Known.

What is Inverse ARP?  
Inverse ARP dynamically maps local DLCIs to remote IP addresses when Frame Relay is configured.