

1. False  
The server might not be this quick.
2. False  
If the users are under the same router, the ip would be the same.
3. True  
Gateway is necessary.  
Reference: <http://bluemuta38.pixnet.net/blog/post/45543389-ip%E5%8F%AF%E7%94%A8%E7%AF%84%E5%9C%8D-%26-%E5%88%86%E8%BE%A8%E7%B6%B2%E6%AE%B5-%26-gateway%E6%84%8F%E7%BE%A9>
4. True  
It needs to know the destination IP address's MAC address before routing in the network environment.
5. False  
A Hub is a networking device that allows one to connect multiple PCs to a single network. Hubs may be based on Ethernet, Firewire, or USB connections. A switch is a control unit that turns the flow of electricity on or off in a circuit. It may also be used to route information patterns in streaming electronic data sent over networks. In the context of a network, a switch is a computer networking device that connects network segments.  
Reference: [http://www.diffen.com/difference/Hub\\_vs\\_Switch](http://www.diffen.com/difference/Hub_vs_Switch)
6. True  
Without DNS, we can still visit website by visiting its IP address directly  
Reference: <http://dyn.com/blog/dns-why-its-important-how-it-works/>
7. False  
802.11b/g/n has a better range and still supports most devices.  
Reference: <http://www.forbes.com/sites/gordonkelly/2014/12/30/802-11ac-vs-802-11n-wifi-whats-the-difference/#492af9223785>
8. True  
A firewall is a network security system that monitors and controls the incoming and outgoing network traffic based on predetermined security rules.  
Reference: [https://en.wikipedia.org/wiki/Firewall\\_\(computing\)](https://en.wikipedia.org/wiki/Firewall_(computing))
9. False  
The DNS server works in a hierarchy structure, only stores existing resource record in its subzone.
10. True  
When there's many hosts in the LAN, DNS server for DHCP is helpful.  
Reference: [http://linux.vbird.org/linux\\_server/0340dhcp.php#other\\_dns](http://linux.vbird.org/linux_server/0340dhcp.php#other_dns)

11. True

12. True

It is possible because of compression or ISP's connectivity and restrictions.

Reference: <http://www.howtogeek.com/253195/how-can-a-vpn-improve-download-speed/>

13. True

With proper routing configuration on the router

14. True

Reference: <http://www.caligare.com/articles/worms.php>

1. CDE

2. AC

3. AD

4.