Exercise 3. Digging into DNS

Question1: IP address of www.cecs.anu.edu.au is 150.203.161.98. The type of DNS query is A, because it returns hostName and ip address .

Question2: The canonical name for the CECS ANU web server is rproxy.cecs.anu.edu.au. The reason for having an alias for the server is to make users more convinient to search. It also make it more dynamic.

Question3: Those name servers all can be available for us digging more information. From the authority section and additional section, we also can get all the name servers associated with the one we searched, and different DNS records type of them, their IP address (both IPV4 and IPV6).

Question4: The IP address of mine is 129.94.208.3.

Question5: The DNS nameservers for the "cecs.anu.edu.au" domain: (implemented search twice, however the results are different)

The first results are my preferred choice for the answer, as when I use "dig cecs.anu.edu.au ns", it also gave this result:

First results: ns2.cecs.anu.edu.au (150.203.161.36)
ns3.cecs.anu.edu.au (150.203.161.50)
ns4.cecs.anu.edu.au (150.203.161.38)

(Second results: ns1.anu.edu.au (150.203.1.10)
ns.adelaide.edu.au (129.127.40.3)
una.anu.edu.au (150.203.22.28))

What type of DNS query is sent to obtain this information? Answer: NS type.

Question6: DNS name associated with 111.68.101.54: webserver.seecs.nust.edu.pk. The type of DNS query is PTR.

Question7: There is no authoritative answer, because in the flag field, there is no "aa" flag, which means no authoritative answer.

Question8: No, still no authoritative answer.

Question9: dig @ns5.yahoo.com yahoo.com MX

Question10: Have to query 5 DNS servers to find get the authoritative answer.

Question11: Yes, one physical machine can have multiple names and associated IP addresses with it.