1- UDP because their is no waste of time in handshaking and opening and closing requests

2- routing is to define the full path before the start of package’s trip while forwarding will make the decision in each node the package will face.

3- translate the ip to the binary format then translate the rest of the ips listed in the table . finally compare the binary numbers and see the most similar one . the result is B

4- decrease the transmission rate and increase the signal strength

5- prog delay ~> 1000/2.5x(10^5) =0.004

transfer delay ~> 1000/(1024x1024) = 0.000954

0.004 + 0.000954 = 0.004954

6- confidentiality : only sender, intended receiver , message integrity: sender, receiver want to ensure message not altered .

7- where you want to get a simple answer from a server as fast as possible. DNS is a example of such a case.

8- 1-it’s not allowed to pass the firewalls

2- can’t adjust the transmission speed to match the one of the receiving machine.

3- doesn’t send packets in order

9-it collects the data about the network in sets of blocks which makes the decision making much easier for the network admin.