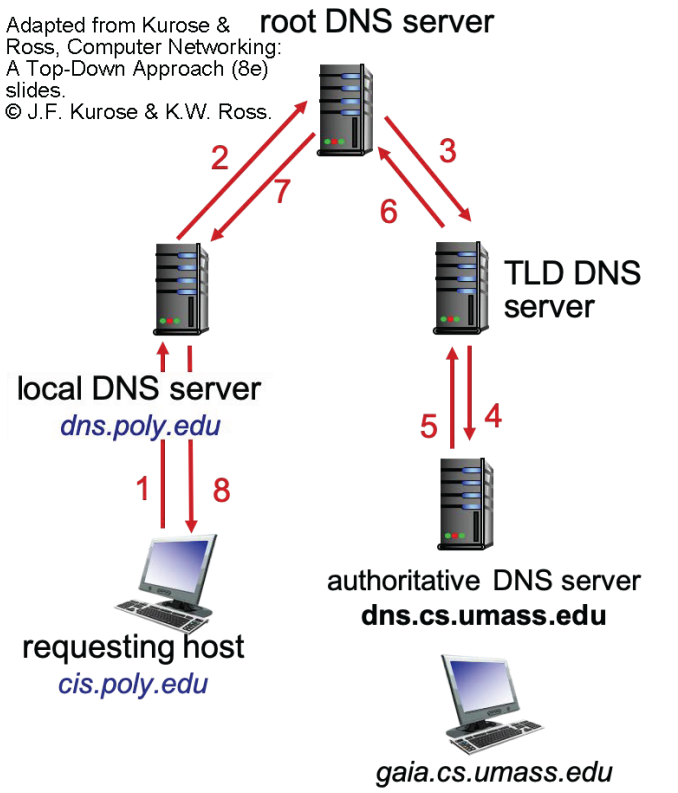
RAT Test Run

Question 1: The DNS queries in this figure are:



A recursive (1 to 8).
B iterative (1 to 8).
C recursive (1 and 8) and iterative (2 to 7).
D iterative (1 and 8) and recursive (2 to 7).

Question 2: DNS is:

A flat and distributed
B hierarchical and centralised
C centralised and flat
D distributed and hierarchical

Question 3: Consider the three classes of DNS server, ordered from top to bottom level, which option is correct?

A Top-level domain servers, Authoritative DNS servers and Root DNS servers,
B Root DNS servers, Authoritative DNS servers and Top-level domain servers.
C Root DNS servers, Top-level domain servers and Authoritative DNS servers.
D Top-level domain servers, Root DNS servers and Authoritative DNS servers.

Question 4: A DNS lookup query response consists of:

A an ANSWER, AUTHORITY and (optionally) ADDITIONAL sections
B an ANSWER and AUTHORITY sections only
C an ANSWER and ADDITIONAL sections
D an ANSWER and (optionally) AUTHORITY sections

Question 5: In BitTorrent, each peer can distribute any part of:

A a file it has fully or partially received to any other peer, regardless of server/tracker assistance.
B a file it has fully or partially to any other peer but a server/tracker is initially needed.
C chunks it has received to any other peer and no server/tracker is needed.
D a file it has fully received to any other peer, regardless of server/tracker assistance.

Question 6: Assuming no upload from a server, BitTorrent is faster than the centralised client-server approach:

A when every peer is unchoked.
B when the sum of the upload rates of the peers is higher than a single server.
C always.
D when there is more than one client/peer downloading a file.

Question 7: If a BitTorrent tracker becomes unavailable:

A new downloads can be started if there are other peers in the network, ongoing downloads can continue but may eventually stop.
B no new downloads can be started, ongoing downloads can continue but may eventually stop.
C all downloads/uploads stop.
D everything remains the same because BitTorrent is P2P.

Question 8: When a new peer joins BitTorrent without any chunks, how can it get the first chunk?

A A neighbour peer will eventually randomly pick the new peer, which will then be optimistically unchoked and will receive chunks.
B A list of neighbour peers will be downloaded from the tracker and these can immediately send the rarest chunks to the new peer.
C A new peer joining BitTorrent starts as unchoked and therefore will receive chunks from neighbours as long as it also sends some in return.
D By default the tracker immediately sends F/N rarest chunks to the new peer, which will send and receive chunks to/from its neighbours.

Question 9: When accessing a web page for the first time, the use of a local DNS:

A reduces the total time needed to download the page only for persistent HTTP connections, regardless of the web page.

B reduces the total time needed to download the page only for non-persistent HTTP connections, regardless of the web page.

C reduces the total time needed to download the page, regardless of the web page and used HTTP connection-type.

D reduces the total time needed to download the page if it has multiple referenced objects in the same domain name.

Question 10: Typically, when accessing email (reading) the application-layer protocols likely being used are:

A IMAP.

B DNS and IMAP (or HTTP for web clients).

C SMTP.

D DNS.