1. What is the use of certification revocation list and what is done to make sure this list does not increase forever?

If the private key of a certificate is compromised, add to the revocation list; before accepting a certificate, all must ensure that it is not in the revocation list. Have expiry time for certificates; all expired certificated can be purged from this list.

2. Under what conditions do you use keyed MD5? What does the sender send if sender and receiver don’t share a secret key?

If receiver wants to ensure that message came from a known sender.

\[ m + \text{MD5}(m+k) + E(E(k, R_{\text{PUB}}), T_{\text{PVT}}) \]

3. In the Multi-Gigabit Router (MGR) design, where is the forwarding action performed and what is the main reason for forwarding action to be performed there?

Forwarding engines, distinct from input line cards, perform the forwarding action. Why: Change in link speed, link layer technology, etc. can be masked from the forwarding action.