In DLP we deal with Z^*_p, but for building collision resistant hash function we will deal with prime order sub-group of Z^*_p . Let's assume G_q is a q-order sub-group of Z^*_p , where q is of n-bits and a generator g. Select uniformly at random an element h from G_q. Select x1, x2 (both in the range 0 to q-1). The hash function h^s can be defined as:

$$\mathbf{h^s(x1, x2) = g^{x1} h^{x2} \bmod p}, \text{ where } s = (G_q, q, g, h)$$

In order to choose p, q, and g, we can choose a prime p such that q=(p-1)/2 is also a prime and $p \equiv 7 \pmod 8$. In this case 2 is guaranteed to be a generator of order q.