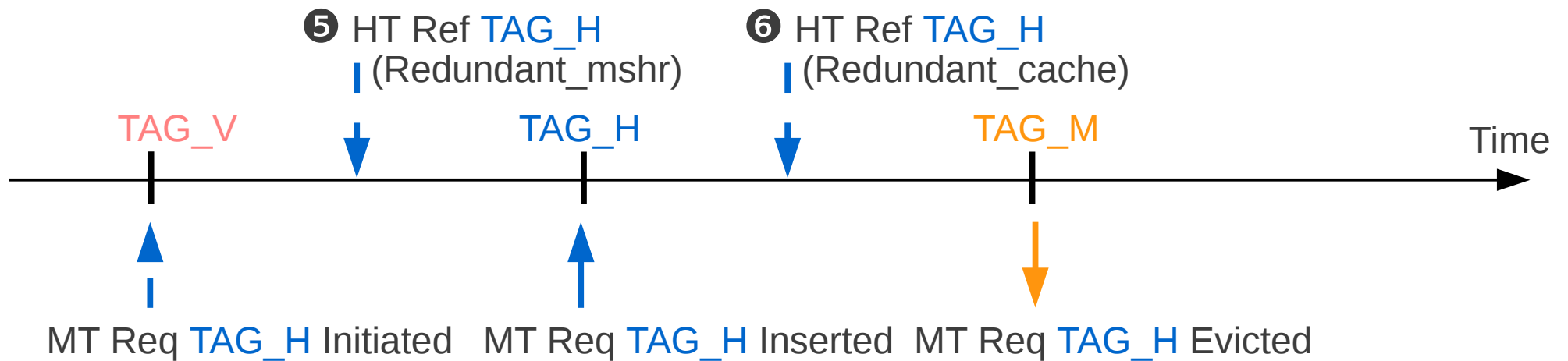


(a) ① Late, ② Timely, ③ Bad and ④ Ugly Helper Thread Requests



(b) ⑤ Redundant_mshr and ⑥ redundant_cache Helper Thread Requests