

QE for Wireless Mobile Internet (each 20 points)

1. State the weakness of IEEE 802.11 MAC protocol in terms of power saving. What is a way to improve it?
2. List a number of steps in link and network layers for handoff in WiFi.
3. Why hidden terminal problem gives more decisive impact to WiFi performance comparing to carrier sense interference ?
4. Define route stability in Wireless Mesh Networks and Mobile Ad Hoc Networks. Why is it so difficult to achieve in those networks ?
5. $WCETT = (1 - \alpha) * \sum_{i=1}^L ETT_i + \alpha * \max_{1 \leq j \leq k} T_j$ where ETT_i is the expected transmission time of link i in a path of length L and T_j is the sum of the transmission times on a particular channel j .

Describe WCETT based on the above and state its disadvantages (at least four)?