Wireless Sensor Networks Hw 2

Please first read the article below:

 "Philip Levis, Sam Madden, David Gay, Joseph Polastre, Robert Szewczyk, Alec Woo, Eric Brewer, and David Culler. 2004. The emergence of networking abstractions and techniques in TinyOS. In*Proceedings of the 1st conference on Symposium on Networked Systems Design and Implementation - Volume 1* (NSDI'04), Vol. 1. USENIX Association, Berkeley, CA, USA, 1-1."

Answer the questions from this article:

1. Where is the atomicity in TinyOS concurrent architecture? May it be provided by software or hardware?
2. What is the effect of the addition of a byte-level hardware abstraction?
3. What is the effect of choosing the level of hardware/software boundary?
4. According to the authors, what are the absent abstractions in TinyOS?
5. What are the differences between the community of Internet and sensor networks?
6. What is the major reason for the absence of consensus in abstraction?
7. What is the difference between TASK and COMMAND units in TinyOS?
8. Mica2 is implemented as a block hardware in contrast to mica. What are the advantages and the disadvantages?
9. Why Pursuer-Evader is an important application for multihop routing?
10. Why cross-layer control is important? Give some examples and compare with traditional networking?

 Deadline: 18.April.2014

Submission: Please send your homework to Res. Asst. Murat Kurt to the following e-mails:

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