Research paper reading questions

Try to answer the following questions as you read a paper. Please see the original source [1] for a complete explanation. An effective method to read a research paper is described in [2].

- What is your take-away message from this paper?
- What is the motivation for this work (both people problem and technical problem), and its distillation into a research question? Why doesn't the people problem have a trivial solution? What are the previous solutions and why are they inadequate?
- What is the proposed solution (hypothesis, idea, design)? Why is it believed it will work? How does it represent an improvement? How is the solution achieved?
- What is the author's evaluation of the solution? What logic, argument, evidence, artifacts (e.g., a proof-of-concept system), or experiments are presented in support of the idea?
- What is your analysis of the identified problem, idea and evaluation? Is this a good idea? What flaws do you perceive in the work? What are the most interesting or controversial ideas? For work that has practical implications, ask whether this will work, who would want it, what it will take to give it to them, and when might it become a reality?
- What are the paper's contributions (author's and your opinion)? Ideas, methods, software, experimental results, experimental techniques...?
- What are future directions for this research (author's and yours, perhaps driven by shortcomings or other critiques)?
- What questions are you left with? What questions would you like to raise in an open discussion of the work (review interesting and controversial points, above)? What do you find difficult to understand? List as many as you can.

[1] William G. Griswold, "How to Read an Engineering Research Paper". Online: http://cseweb.ucsd.edu/~wgg/CSE210/howtoread.html
[2] S. Keshav, "How to Read a Paper". Online: http://ccr.sigcomm.org/online/files/p83-keshavA.pdf