Issues to be considered when you read/evaluate a paper

1. What is/are the research hypotheses?
2. How the research hypothesis are tested? (e.g., live user study, off-line evaluation, statistical hypothesis testing)
3. What is the “better” criteria that the paper uses?
4. Is this “better” criteria sound?
5. Is the “better” criteria correctly measured and compared (e.g., did they perform an A/B test)?
6. Is the “better” criteria correctly identified for the considered research hypothesis? E.g., is the research hypothesis proved if an improvement of the “better” criteria is measured?)
7. Is the research hypothesis really proved? According to the author and in your opinion.
8. Is the paper combining the empirical, mathematical and engineering paradigms?
9. Is there any prevalence of importance of one of these paradigms?
10. Are users involved in the experimental evaluation?
11. Are the users a good sample of the real users of the system?
12. Have the users tried the system (task) in a realistic scenario?
13. Does the article describe the usage scenario?
14. Are possible caveats discussed?
15. What artefacts are developed?
16. What is the role of the developed artefacts? (Proof of performance, proof of concept, proof of existence)
17. What new technologies are used? Is the research motivated by new technologies?
18. Is the performed experiment motivated by a theory?
19. Is a new theory built/inspired by the experiment?
20. Is the research driven by the application problem or by the technique?
21. Is the research instrumentalist?
22. Is the research empirical?
23. Is the research applied or basic?
24. Is the research method quantitative or qualitative?
25. What is new in the research?
26. Who are supposed to be the reader of the article?
27. Was a pleasure to read that article? Yes/No and why.
28. Is the title compliant with the rules that are stated in the lecture notes?
29. Is the abstract containing what should contain? What is missing?
30. Is the introduction structured according to the template that the teacher provided?
31. Is the Hourglass model respected?
32. What is the “niche” of the paper?
33. Is the method reproducible? Only partially?
34. Are the important results correctly identified? Are minor results confusing the overall picture?
35. Is the discussion also including weak point of the proposed approach (caveats)?
36. Have the article’s authors illustrated how their results are connected with results obtained by other researchers?
37. Is the “related work section” containing the elements described in the slides?
38. Is the significance of the work correctly emphasized?
39. What do you think is or will be the impact of this work?
40. Estimate the impact of this work (see the slides)?
41. Is this work significant?
42. Is this work novel?
43. Is this work sound?
44. Is this work relevant?
45. How do you judge the readability and the presentation?