Report on Digital Printing

The report on printing consists of answers to the following questions. The answers should be complete and written in such a way that the a general reader (who doesn't know anything specific about the project) can understand them. Keep it self-contained, short but clear. The structure of the report should follow the questions below. The report is due Dec 12 2025. Please, send your report to the grader.

I) (10) Discuss the process of digital printing and at least two of its difficulties.

II) (20) Explain the use of masks. In particular explain
- How a given mask is used to reproduce a picture, the algorithm (5pts).
- How many greys a NxN mask can produce (5pts).
- The little patterns used to produce the different greys in the case of a 3x3 mask (10pts).

III) (10) Give four criteria to use to evaluate the result of a mask. Clarify the criteria with examples.

III) (30) Describe six methods to design mask. Add the heuristic reason why the method should give good results Produce realizations of the methods, i.e. masks.

IV) (10) Use reproductions of the Pallet of greys (the stupid picture) to evaluate the 6x6 masks you created. Select the best three masks. Explain why they are the selected ones. Give an example of a bad result.

V) (20) Apply your three best 6x6 and the worst 6x6 mask to actual pictures. Explain what is your prefered 6x6 mask. Base your explaination on the results for at least 3 pictures (size approximately 1000x1000—1500x1500).

The numbers between parenthesis are the points you can get for the question. Grade=total number of points.

Often math majors use these reports to satisfy their writting requirements. At the end of the semester let me know whether you want to use your reports for this purpose.