Remarks on exam questions:

In question 1.1, the algorithm has to be strongly polynomial time. Unlike question 1.2, it should not involve solving a linear program (as it is not known whether solving LPs can be done in strongly polynomial time).

In question 2.1 briefly explain how the SDP can be approximately solved in polynomial time (which algorithm can one choose, how and why is it applicable for this SDP, in what sense is the solution approximate). Explaining how the rounding is done is part of question 2.2, not question 2.1.

In question 2.2, the number of colors that you are allowed to use is $O\left(\Delta^{\delta}(\log n)^{O(1)}\right)$.