Questions 10.2, 6, 7, and 8 were worth 2 marks each.
The other questions were worth 1 mark each.

Here are some comments from the TA about this assignment:

9.5. A lot of students didn't explain why the two strings they found were the ONLY strings at distance 1/2 away from the zero string.

9.9. Many gave proofs that were unclear. The argument can be made very cleanly (it should be a one-liner, I think).

10.2. Some students wrote things like, "All rationals are dense, therefore a subset of the rationals is also dense", and other logical errors. By far the most common thing I deducted a mark for was when a student would claim something along the lines of "x is in S_2 if and only if x has a terminating binary expansion", and did not prove it.

10.6. and 10.7. Many students would take a point in T_1 and then take a point in \Sigma that was distance 1/16 away from it. This is not the same as taking a point in \Sigma and showing that every point in T_1 is at least 1/16 away (which of course proves that no sequence in T_1 can converge to some point in \Sigma, showing that T_1 is not dense). Many students wrote that 10.7 followed from arguments similar to those in 10.6, and I accepted that answer as long as what was said in 10.6 made sense. Some students said that the results of 10.6 implied the results of 10.7, which is wrong and worth no marks.

10.15. Very many students had the right idea that the orbit of the given sequence never "got close" to a sequence such as 11111..., but I deducted a mark here if the notion of a sequence "getting close" to another was not made precise. It's not difficult to estimate exactly how far the orbit of the given sequence stays from 11111.... .

10.21. / 10.22. Some students lost marks for not mentioning when the conjugacy they found was actually a semi-conjugacy. Some students lost marks for giving a rushed solution with details missing.