CHAPTER V

CONCLUSIONS AND SUGGESTIONS

5.1. Conclusions

1. The result shows from 20 item of the test, there are six highlight about students' misconceptions on buffer solution chemistry topic. Students' misconception which is identified are students' misconception about how buffer solutions work upon the addition of slightly acid or base and dilution (26.31%), students' misconceptions about equilibrium system of buffers upon the addition of slightly acid or base and dilution (31.93%), students' misconceptions about the change of pH upon the addition of slightly acid or base and dilution (24.58%), students' misconceptions about relation between pH and pK_a (13.32%), students' misconceptions about how to prepare buffer solution (16.76%), and students' misconceptions about the function of buffer solution in daily life(19.55%).
2. The percentage of students' misconceptions on buffer solution from School A (9.73%), School B (33.90%), School C (36.31%), School D (33.23%), School E (35.13%) and School F (35.30%), and the average of students' misconceptions from senior high school students in Medan about buffer solution is 30.6%.
3. The types of misconceptions were identified are preconceived notions and conceptual misunderstanding. Misconceptions on other fundamental chemical concepts (Chemical equilibrium and Acid-Base Chemistry) lead to students misconceptions on buffer solution.

5.2. Suggestions

This study shows high misconceptions occurred in senior high school students in chemistry subject especially for buffer solution topic. Suggestion is given to the chemistry teachers to give more attention during class activity to eliminate the students' misconceptions especially during teaching of fundamental concepts; the teachers should use certain method and strategies to prevent

students' misconception. Identifying of students' misconceptions before doing teaching and learning process in the class will help the teachers to preventing these misconceptions. It is recommended for the teachers to use the result of this research as materials to comprehend the students' misconceptions.