# CHAPTER V

# CONCLUSION AND SUGGESTION

## 5.1 Conclusion

The model gives a reasonable fit to the viscosity-temperature data of lubricating base oil and their mixtures. A linear correlation between parameters of this equation ($b$ and $a$) and the mixture composition expressed in weight fraction ($x_i$) was found. Due to this fact, simple equation for parameters was derived, which permits the viscosity of lubricating base oil mixtures at any temperature to be predicted from the viscosity-temperature data of its components. Kinematic viscosities from prediction using weight method agree better with experimental values than volume method. It gave good results with absolute average deviation $\approx$ 4% at the temperatures 25 and 100°C, but 16% at 40°C. The predicted results are satisfactory and the accuracy can be achieved in comparison with the experimental results in this work, it is concluded that this model is adequate to predict the viscosity of lubricating base oil blends from the viscosities of the lubricating base oil components.

## 5.2 Suggestion for further study

1. This work has been developed as a model that does not contain additives. Hence further investigations on viscosity predicting using this model with a blend system consisting of components that contain additives is recommended.

2. The experiment should be performed at temperature more than three points for the good results when using statistics linear regression analysis.