**Solution Sheet**

1. Which model have you used for probability prediction? Explain your model.

I have used Support Vector Regression for predicting the probability of infection with a Gaussian kernel. This model uses Support Vector Machine(SVM) to predict a continuous variable. Instead of minimising the error between the predicted and the actual value, Support Vector Regression tries to fit the best line within a predefined or threshold error value. What SVR does in this sense, it tries to classify all the prediction lines in two types, ones that pass through the error boundary( space separated by two parallel lines) and ones that don’t. Those lines which do not pass the error boundary are not considered as the difference between the predicted value and the actual value has exceeded the error threshold, 𝞮(epsilon). The lines that pass, are considered for a potential support vector to predict the value of an unknown

1. Which model have you used for Diuresis Time series prediction? Explain your model.