

# Assignment-1: Kernel Methods for Pattern Analysis

## 1-dimensional (Uni-variate) input functions

*Instructions:* Domain = (0,1). Generate 100 data points randomly using below function (corresponding to your group number) by adding Gaussian noise with 0 mean. Divide the data set as 70:20:10 (train:test:validation).

1.  $e^{(\cos(2\pi x) + \sin(2\pi x))}$
2.  $e^{\sin(2\pi x)}$
3.  $e^{\cos(2\pi x)}$
4.  $e^{\sin(2\pi x)} + x$
5.  $e^{\cos(2\pi x)} + x$
6.  $e^{\tanh(2\pi x)}$
7.  $e^{\sin(2\pi x)} + \log_e(x)$
8.  $e^{\cos(2\pi x)} + \log_e(x)$
9.  $\cos(2\pi x) + \tanh(2\pi x)$
10.  $\sin(2\pi x) + \tanh(2\pi x)$