

ME324: IEOR
Assignment 07: Forecasting
Department of Mechanical Engineering, IIT Guwahati

Write your answers up to two decimal places.

- Q 1. Following is the actual demand of an item from May 2015 to April 2016: 97, 93, 110, 98, 130, 133, 129, 138, 136, 124, 139, 125. Forecast the demand of an item for May 2016 using
- Simple moving average method for 3-months period.
 - Four month weighted average method. Following is weights in the reverse order of months [0.65, 0.2, 0.1, 0.05]
 - Using exponential smoothing method. Take exponential factor as 0.25.
 - Using double exponential smoothing method. Take both exponential factor as 0.3.
 - Calculate mean square error of above four methods and tabulate them. Give your suggestion for all methods based on error.

Q 2. Four quarter demand data of a product is as follows:

Year Quarter	1	2	3	4
Q1	63	67	69	71
Q2	112	117	119	130
Q3	180	197	209	221
Q4	109	118	121	135

Forecast the demand for all quarters of fifth year using seasonal forecast time series method.

Due date for submission is 22 April 2022. Submit your assignment during lecture.