**PRODUCTION ENGINEERING(25)**

**SUBJECT NAME: METROLOGY AND MEASUREMENT**

**SYLLABUS OF PAT MARCH, 2018**

**Chapter:1 Introduction to Measurements**

Generalized Measurement system, static & dynamic characteristics of instruments, types of measurement system , Instrumental error & its analysis, etc.

**Chapter: 5 Metrology**

Basics of Metrology, Need for Inspection, Accuracy and Precision, Objectives, Standards of measurements.

**Chapter 6: Linear and angular measurements**

Working principle , constriction , Measurement prouder, error and elimination, limitations and calibration of different linear and Angular measuring instruments.

**Chapter 7: Screw Thread Measurement**

Errors in threads, screw thread gauges, measurement of element of the external and internal threads, thread calliper gauges

**Chapter 8 : Metrology of Surface finish**

Surface Metrology Concepts and terminology, Analysis of surface traces, Specification of surface Texture characteristics, and Method of measuring surface finish: Stylus system of measurement, Stylus probe instruments, Wave length, frequency and cut off, other methods for measuring surface roughness: Pneumatic method, Light Interference microscopes, Mecrin Instruments.

**Prof. Nital P Nirmal Prof. Jignesh A Bhoi**