

**SHANTILAL SHAH ENGINEERING COLLEGE BHAVNAGAR**  
**INSTRUMENTATION & CONTROL ENGINEERING**

*GTU MID SEM EXAMINATION-WINTER-2019 SYLLABUS*

**SEMESTER:** BE-3<sup>RD</sup>

**SUBJECT NAME:** Measurement & Instrument

**SUBJECT Code:** 3131706

<b>Chapter No.</b>	<b>Topic</b>
<b>1</b>	<b>Introduction:</b> Types of instruments: Indicating, recording, integrating, etc. <b>Experimental Data and Errors:</b> Measurement Recording and Reporting, Graphical Presentation of Data, Precision and Accuracy, Resolution and Sensitivity, Errors in Measurement, Statistical Evaluation of Measurement Data and Errors
<b>2</b>	<b>Analog DC and AC meters:</b> Electromechanically meter movements, PMMC, Analog DC ammeters, Analog DC voltmeters, Analog AC ammeters and Voltmeters, Analog multimeters, Special purpose analog meters, Use of basic meters, meter errors, problems. Extending the range of meters, Loading effects and their elimination, true rms voltmeters.
<b>3</b>	<b>Digital Meters:</b> DVM and Digital multimeter, vector voltmeters, 7 Segment and LCD display.
<b>7</b>	<b>Measurement of Resistance &amp; Bridges :</b> Resistance and resistor, resistor type, measurement of resistance, Wheatstone Bridge, Making balanced Wheatstone Bridge measurement, Low value resistance measurement (Kelvin Double Bridge), problems.