

**INDEX****UNIT I****Chapter 1 : Fundamentals of Measurements****1-1 to 1-24**

**Syllabus : Measurement :** Significance, units, fundamental quantities and standards. **Instruments :** (a) Absolute and secondary instruments, (b) Analog and digital instruments, (c) Mechanical, electrical and electronic instruments, Static and Dynamic characteristics, Types of Errors. **Calibration :** Need and Procedure.

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**Syllabus : Analog Meters :** Permanent magnet moving coil (PMMC) and Permanent magnet Moving Iron (PMMI) meter, their construction, working, salient features. **DC Ammeter :** Basic, Multi range, Universal shunt. **DC Voltmeter :** Basic, Multi range, Simple numerical based on  $R_s$ , Concept of loading effect and sensitivity. **AC Voltmeter :** Rectifier type (half wave and full wave). **Ohmmeter :** Series and Shunt, **Clamp - on Meter.**

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