**LESSON PLAN**

**Subject Code & Name: 13EC3047 & Electronic Measurements And Instrumentation**

**Branch: E.C.E-C Class / Semester: III/I Academic Year:2015-16**

**Faculty:**

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| **Period** | **Date (Tentative)** | **Topic** | **Unit No.** | **Teaching Methodology** | **Remarks** | **Corrective action upon review** |
|  |  | **Performance characteristics of instruments:** | **I** |  |  |  |
| 1 | 20.07.2015 | Static Characteristics, Accuracy, Resolution, Precision, Expected Value |  | CB |  |  |
| 2 | 20.07.2015 | Error and Sensitivity ,Errors in Measurement |  | CB |  |  |
| 3 | 22.07.2015 | Dynamic Characteristics, Speed Of Response, Fidelity, Lag |  | CB |  |  |
| 4 | 24.07.2015 | Dynamic Error, problems |  | CB |  |  |
| 5 | 27.07.2015 | **Voltmeters:** Multirange, Range Extension, |  | CB |  |  |
| 6 | 27.07.2015 | Solid State , Differential Voltmeters |  | CB |  |  |
| 7 | 29.07.2015 | **Ammeters:** Shunt And Thermocouple Type Ammeter. |  | CB |  |  |
| 8 | 31.07.2015 | **Ohmmeters**: Series Type, Shunt Type, |  | CB |  |  |
| 9 | 03.08.2015 | Multimeter For Voltage, Current And Resistance Measurements. |  | CB |  |  |
| 10 | 03.08.2015 | **Digital Multimeters:** Block Diagram And Specifications |  | PPT |  |  |
|  |  | **Signal Generators** | **II** |  |  |  |
| 11 | 05.08.2015 | Fixed and Variable |  | CB |  |  |
| 12 | 07.08.2015 | Standard Signal Generators |  | CB |  |  |
| 13 | 10.08.2015 | AF sine & Square Wave Signal Generators |  | CB |  |  |
| 14 | 10.08.2015 | Function Generators |  | CB |  |  |
| 15 | 12.08.2015 | Square Pulse generator , Random Noise generator |  | CB |  |  |
| 16 | 14.08.2015 | Sweep generator |  | CB |  |  |
| 17 | 17.08.2015 | **Wave Analyzers:** Harmonic Distortion Analyzers |  | CB |  |  |
| 18 | 17.08.2015 | Spectrum Analyzers |  | CB |  |  |
| 19 | 19.08.2015 | Digital Fourier Analyzers |  | CB |  |  |
|  |  | **Cathode Ray Oscilloscopes:** | **III** |  |  |  |
| 20 | 21.08.2015 | CRT Features, |  | CB |  |  |
| 21 | 24.08.2015 | Vertical Amplifiers |  | CB |  |  |
| 22 | 24.08.2015 | Horizontal Deflection System |  | CB |  |  |
| 23 | 31.08.2015 | Sweep, Trigger Pulse, Delay Line |  | CB |  |  |
| 24 | 31.08.2015 | Sync Selector Circuits |  | CB |  |  |
| 25 | 02.09.2015 | Simple CRO, Triggered Sweep CRO |  | CB |  |  |
| 26 | 04.09.2015 | ,Dual Beam CRO |  |  |  |  |
| 27 | 07.09.2015 | Measurement Of Amplitude And Frequency |  | CB |  |  |
| 28 | 07.09.2015 | Dual Trace Oscilloscope, |  | CB |  |  |
| 29 | 09.09.2015 | Sampling Oscilloscope |  | CB |  |  |
| 30 | 11.09.2015 | Storage Oscilloscope, |  | CB |  |  |
| 31 | 14.09.2015 | Digital Storage Oscilloscope |  | CB |  |  |
| 32 | 14.09.2015 | Lissajous Method Of Frequency Measurement |  | CB |  |  |
| 33 | 16.09.2015 | Standard Specifications Of CRO |  | CB |  |  |
| 34 | 18.09.2015 | Probes For CRO (Active And Passive), Attenuator Type |  | CB |  |  |
|  |  | **Ac Bridges:** | **IV** |  |  |  |
| 35 | 21.09.15 | Measurement Of Inductance: |  | CB |  |  |
| 36 | 21.09.15 | Maxwell’s Bridge |  | CB |  |  |
| 37 | 23.09.15 | Anderson Bridge |  | CB |  |  |
| 38 | 25.09.15 | Measurement Of Capacitance: Schearing Bridge |  | CB |  |  |
| 39 | 05.10.15 | Kelvin’s Bridge |  | CB |  |  |
| 40 | 05.10.15 | Wheatstone Bridge |  | CB |  |  |
| 41 | 07.10.15 | Wien Bridge |  | CB |  |  |
| 42 | 09.10.15 | Errors And Precautions |  | CB |  |  |
| 43 | 12.10.15 | Related Problems on Bridges |  | CB |  |  |
| 44 | 12.10.15 | Q – Meter |  | CB |  |  |
|  |  | **Active And Passive Transducers:** | **V** |  |  |  |
| 45 | 14.10.15 | **Introduction** |  |  |  |  |
| 46 | 16.10.15 | Resistance |  | CB |  |  |
| 47 | 19.10.15 | Capacitance |  | CB |  |  |
| 48 | 19.10.15 | Inductance |  | CB |  |  |
| 49,50 | 21.10.15 | Strain Gauges |  | CB |  |  |
| 51 | 23.10.15 | LVDT |  | CB |  |  |
| 52 | 26.10.15 | Piezo Electric Transducers |  | CB |  |  |
| 53 | 28.10.15 | Resistance Thermometers |  | CB |  |  |
| 54 | 30.10.15 | Thermocouples |  | CB |  |  |
| 55 | 02.11.15 | Thermistors |  | CB |  |  |
| 56 | 05.11.15 | Sensistors |  | CB |  |  |
| 57 | 06.11.15 | Basic Hall Effect Sensors. |  | CB |  |  |
| 58 | 09.11.15 | Calibration And Standards |  | CB |  |  |
| 59 | 09.10.15 | Data Acquisition Systems. |  | CB |  |  |

**CB: CHALK&BOARD PPT: POWER POINT PRESENTATION**