**17SH12P2 - ENGINEERING PHYSICS LABORATORY**

**(Common to CE & ME)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Course Category** | Basic Science | **Credits** | 2 |
| **Course Type** | Practical | **Lecture-Tutorial-Practical** | 0 - 0 - 3 |
| **Prerequisite** | Engineering Physics | **Sessional Evaluation** | 40 |
| **Semester End Exam Evaluation** | 60 |
| **Total Marks** | 100 |

|  |  |
| --- | --- |
| **Course**  **Objective(s)** | The main objective is to provide students to learn about some important experimental techniques in physics with knowledge in theoretical aspects so that they can excel in that particular field. |
| **Course**  **Outcomes** | 1. These experiments in the laboratory are helpful in understanding important concepts of physics through involvement in the experiments by applying theoretical knowledge. 2. It helps to recognize where the ideas of the students agree with those accepted by physics and where they do not. |
| **Course Content** | Minimum of 8 experiments to be completed out of the following :  **LIST OF EXPERIMENTS**   1. Determination of Rigidity modulus of a material – Torsional pendulum. 2. Melde’s Experiment – Transverse and Longitudinal modes. 3. Time constant of RC circuit. 4. Resonance in LCR circuit. 5. Magnetic field along the axis of a coil (Stewart-Gees Method). 6. Study of characteristics of LED and LASER Sources. 7. Evaluation of Numerical Aperture of a given fiber. 8. Energy Gap of a material of p-n junction. 9. Diode Characteristics. 10. Transistor Characteristics. 11. Characteristics of Solar cell. 12. Logic Gates. 13. Hall Effect. |