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| Discipline:<br>Math & Sc                               | Semester: 1 <sup>st</sup>                                         | Name of the teaching faculty: <b>Satya Narayan Tripathy</b><br>(Sr Lect. In Physics)                              |
| Subject:<br><b>Engg. Physics</b><br><b>Lab (Pr.2a)</b> | No. of days/week<br>class allotted:<br>04                         | Semester from date: 25.10.2022 To date: 31.1.2023<br>No. of weeks: 15                                             |
| Subject Course<br>Outcomes                             |                                                                   | CO 1: Identify physical quantities & represent them as scalars & vectors to solve related problems.               |
|                                                        |                                                                   | CO 2: Understand concepts of rest, motion & projectile motion & hence solve related problems.                     |
|                                                        |                                                                   | CO 3: Define work, Friction & solve related problems                                                              |
|                                                        |                                                                   | CO 4: Define & use the concepts of gravitation, wave motion, heat & optics to solve real life problems.           |
|                                                        |                                                                   | CO 5: Explain the concepts of electrostatics, magneto statics, current & magnetism in the context of engineering. |
|                                                        |                                                                   | CO 6: Understand LASER & its Applications.                                                                        |
| Week                                                   | Class Day                                                         | CO 2: Understand concepts of rest, motion & projectile motion & hence solve related problems.                     |
| 1 <sup>st</sup>                                        | 1 <sup>st</sup> 2 <sup>nd</sup> 3 <sup>rd</sup> & 4 <sup>th</sup> | CO 3: Define work, Friction & solve related problems                                                              |
| 2 <sup>nd</sup>                                        | 1 <sup>st</sup> & 2 <sup>nd</sup>                                 | CO 4: Define & use the concepts of gravitation, wave motion, heat & optics to solve real life problems            |
|                                                        | 3 <sup>rd</sup> & 4 <sup>th</sup>                                 | CO 5: Explain the concepts of electrostatics, magneto statics, current & magnetism in the context of engineering. |
| 3 <sup>rd</sup>                                        | 1 <sup>st</sup> 2 <sup>nd</sup> 3 <sup>rd</sup> & 4 <sup>th</sup> | CO 6: Understand LASER & its Applications.                                                                        |
| 4 <sup>th</sup>                                        | 1 <sup>st</sup> 2 <sup>nd</sup> 3 <sup>rd</sup> & 4 <sup>th</sup> | To find the cross sectional area of a wire using screw gauge                                                      |
| 5 <sup>th</sup>                                        | 1 <sup>st</sup> & 2 <sup>nd</sup>                                 | To find the cross sectional area of a wire using screw gauge                                                      |
|                                                        | 3 <sup>rd</sup> & 4 <sup>th</sup>                                 | To find the thickness and volume of a glass piece using a screw gauge                                             |
| 6 <sup>th</sup>                                        | 1 <sup>st</sup> 2 <sup>nd</sup> 3 <sup>rd</sup> & 4 <sup>th</sup> | To find the thickness and volume of a glass piece using a screw gauge                                             |
| 7 <sup>th</sup>                                        | 1 <sup>st</sup> 2 <sup>nd</sup> 3 <sup>rd</sup> & 4 <sup>th</sup> | To determine the radius of curvature of convex surface using a Spherometer                                        |
| 8 <sup>th</sup>                                        | 1 <sup>st</sup> & 2 <sup>nd</sup>                                 | To determine the radius of curvature of convex surface using a Spherometer                                        |
|                                                        | 4 <sup>th</sup> & 3 <sup>rd</sup>                                 | To determine the radius of curvature of concave surface using a Spherometer.                                      |
| 9 <sup>th</sup>                                        | 1 <sup>st</sup> 2 <sup>nd</sup> 3 <sup>rd</sup> & 4 <sup>th</sup> | To determine the radius of curvature of concave surface using a Spherometer                                       |
| 10 <sup>th</sup>                                       | 1 <sup>st</sup> 2 <sup>nd</sup> 3 <sup>rd</sup> & 4 <sup>th</sup> | To verify Ohm's Law by Ammeter – Voltmeter method                                                                 |
| 11 <sup>th</sup>                                       | 1 <sup>st</sup> & 2 <sup>nd</sup>                                 | To verify Ohm's Law by Ammeter – Voltmeter method                                                                 |
|                                                        | 3 <sup>rd</sup> & 4 <sup>th</sup>                                 | To trace lines of force due to a bar magnet with North pole pointing North and locate the neutral points          |
| 12 <sup>th</sup>                                       | 1 <sup>st</sup> 2 <sup>nd</sup> 3 <sup>rd</sup> & 4 <sup>th</sup> | To trace lines of force due to a bar magnet with North pole pointing North and locate the neutral point           |
| 13 <sup>th</sup>                                       | 1 <sup>st</sup> 2 <sup>nd</sup> 3 <sup>rd</sup> & 4 <sup>th</sup> | To trace lines of force due to a bar magnet with North pole pointing South and locate the neutral points          |

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| 14 <sup>th</sup> | 1 <sup>st</sup> & 2 <sup>nd</sup>                                 | To trace lines of force due to a bar magnet with North pole pointing South and locate the neutral points |
|                  | 3 <sup>rd</sup> & 4 <sup>th</sup>                                 | To find the time period of a simple pendulum and determine acceleration due to gravity                   |
| 15 <sup>th</sup> | 1 <sup>st</sup> 2 <sup>nd</sup> 3 <sup>rd</sup> & 4 <sup>th</sup> | To find the time period of a simple pendulum and determine acceleration due to gravity                   |

Satya  
25/10/22

HOD (Math & Sc)

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Satya Narayan Tripathy  
Sr Lect. Physics GP Kraput