## Academic Plan of Department of Physics 2023-2024:

| Semester | Paper | Time<br>Frame   | Topics  | Teachers | Other<br>Activities |
|----------|-------|---|---|----------|---------------------|
| 1        | MDC-1 | July  | (A) Mathematical Physics 1. Preliminaries   | PMC      | Class Test          |
|          |       |   | (B) Classical Mechanics   | PT       |                     |
|          |       |   | 1. Review of Newton's Laws  Mechanics Practical 1 & 2                                       | PMC & PT |                     |
|          |       | August  | (A) Mathematical Physics 2. Ordinary Differential Equations 3. Vectors                      | PMC      | Class Test          |
|          |       |   | (B) Classical Mechanics 2. Work Kinetic Energy Theorem 3. Dynamics of a system of particles | PT       |                     |
|          |       |   | Mechanics Practical 3 & 4   | PMC & PT |                     |
|          |       | September   | (A) Mathematical Physics 4. Curvilinear coordinates   | PMC      | Class Test          |
|          |       |   | (B) Classical Mechanics 4. Central force  | PT       |                     |
|          |       |   | Mechanics Practical 5 & Revision  | PMC & PT |                     |
|          |       | October<br>(Puja  | (B) Classical Mechanics 7. Mechanics of Continuum Prince of Continuum                       | PMC      | Class Test          |
|          |       | Vacation:   | Revision, Home Assignment & Work Sheet  (B) Classical Mechanics                             | PT       |                     |
|          |       | 21 <sup>st</sup> -31 <sup>st</sup> )                      | 6. Scattering Revision, Home Assignment & Work Sheet  | FI       |                     |
|          |       |   | Mechanics Practical Practice  | PMC & PT |                     |
|          |       | November  | Revision, Home Assignment & Work Sheet  | PMC      |                     |
|          |       | (Puja<br>Vacation:  | Revision, Home Assignment & Work Sheet  | PT       |                     |
|          |       | 1 <sup>st</sup> -16 <sup>st</sup> ) December              | Revision & University Examination   | PMC      |                     |
|          |       | (Christmas 24 <sup>th</sup> – 31 <sup>st</sup> )          | Revision & University Examination   | PT       |                     |
|          | SEC-1 | July  | 2. Introduction to programming in python (Version 3.x)                                      | PMC      | Class Test          |
|          |       |   | 1. Introduction to Graph Plotting (2D only, using GNUPLOT)                                  | PT       |                     |
|          |       | August  | 2. Introduction to programming in python (Version 3.x)                                      | PMC      | Class Test          |
|          |       |   | 1. Introduction to Graph Plotting (2D only, using GNUPLOT)                                  | PT       |                     |
|          |       | September   | 2. Introduction to programming in python (Version 3.x)                                      | PMC      | Class Test          |
|          |       |   | 1. Introduction to Graph Plotting (2D only, using GNUPLOT)                                  | PT       |                     |
|          |       | October<br>(Puja  | Revision, Home Assignment & Work Sheet  | PMC      | Class Test          |
|          |       | Vacation: 21 <sup>st</sup> -31 <sup>st</sup> )            | Revision, Home Assignment & Work Sheet  | PT       |                     |
|          |       | November  | Revision, Home Assignment & Work Sheet  | PMC      |                     |
|          |       | (Puja<br>Vacation:<br>1 <sup>st</sup> -16 <sup>st</sup> ) | Revision, Home Assignment & Work Sheet  | PT       |                     |
|          |       | December<br>(Christmas                                    | Revision & University Examination   | PMC      |                     |
|          |       | 24 <sup>th</sup> – 31 <sup>st</sup> )                     | Revision & University Examination   | PT       |                     |

| Semester | Paper    | Time<br>Frame  | Topics   | Teachers | Other<br>Activities |
|----------|----------|--|--|----------|---------------------|
| 3        | CC-3/GE3 | July   | 1. Laws of Thermodynamics  | PMC      | Class Test          |
|          |          |  | 4 Theory of Radiation  | PT       |                     |
|          |          |  | Thermal Physics and Statistical Mechanics Practical 1 & 2        | PMC & PT |                     |
|          |          | August   | 2. Thermodynamic Potentials                                      | PMC      | Class Test          |
|          |          |  | 5. Themodynamic Potentials 6. Statistical Mechanics              | PT       |                     |
|          |          |  | Thermal Physics and Statistical Mechanics Practical 3 & 4        | PMC & PT |                     |
|          |          | September  | 3. Kinetic Theory of Gases                                       | PMC      | Class Test          |
|          |          |  | 6. Statistical Mechanics   | PT       |                     |
|          |          |  | Thermal Physics and Statistical Mechanics Practical 5 & Revision | PMC & PT |                     |
|          |          | October  | Revision, Home Assignment & Work Sheet                           | PMC      | Class Test          |
|          |          | (Puja  | Revision, Home Assignment & Work Sheet                           | PT       |                     |
|          |          | Vacation: 21 <sup>st</sup> -31 <sup>st</sup> )             | Thermal Physics and Statistical Mechanics Practical Practice     | PMC & PT |                     |
|          |          | November   | Revision, Home Assignment & Work Sheet                           | PMC      |                     |
|          |          | (Puja<br>Vacation:<br>1st -16st)                           | Revision, Home Assignment & Work Sheet                           | PT       |                     |
|          |          | December   | Revision & University Examination                                | PMC      |                     |
|          |          | (Christmas 24 <sup>th</sup> – 31 <sup>st</sup> )           | Revision & University Examination                                | PT       |                     |
|          | SEC A-2  | July   | 1.Fossil fuels and Alternate Sources of energy                   | PMC      | Class Test          |
|          |          |  | 2.Solar energy   | PT       | 1                   |
|          |          | August   | 3.Wind Energy harvesting, 4.Ocean Energy                         | PMC      | Class Test          |
|          |          |  | 6.Hydro Energy 7. Piezoelectric Energy harvesting                | PT       |                     |
|          |          | September  | 5.Geothermal Energy  | PMC      | Class Test          |
|          |          |  | 8. Electromagnetic energy harvesting, 9. Fuel Cell               | PT       |                     |
|          |          | October  | Revision, Home Assignment & Work Sheet                           | PMC      | Class Test          |
|          |          | (Puja<br>Vacation:<br>21 <sup>st</sup> -31 <sup>st</sup> ) | Revision, Home Assignment & Work Sheet                           | PT       |                     |
|          |          | November   | Revision, Home Assignment & Work Sheet                           | PMC      |                     |
|          |          | (Puja<br>Vacation:<br>1 <sup>st</sup> -16 <sup>st</sup> )  | Revision, Home Assignment & Work Sheet                           | PT       |                     |
|          |          | December<br>(Christmas                                     | Revision & University Examination                                | PMC      |                     |
|          |          | 24 <sup>th</sup> – 31 <sup>st</sup> )                      | Revision & University Examination                                | PT       |                     |

| Semester | Paper    | Time<br>Frame   | Topics   | Teachers    | Other<br>Activities |
|----------|----------|---|--|-------------|---------------------|
| 5        | DSE-A(1) | July  | 2. Semiconductor Devices   | PMC         | Class Test          |
|          |          |   | 1. Circuits and Network  | PT          |                     |
|          |          |   | Analog Electronics Practical 1 & 2                                       | PMC & PT    |                     |
|          |          | August  | 2. Semiconductor Devices   | PMC         | Class Test          |
|          |          |   | 3. Regulated Power Supply 4. Field effect transistor                     | PT PMG 0 PT |                     |
|          |          | G 1   | Analog Electronics Practical 3 & 4                                       | PMC & PT    | CI TI               |
|          |          | September   | Operational Amplifiers     Feedback Amplifiers 5. Operational Amplifiers | PMC         | Class Test          |
|          |          |   | Analog Electronics Practical 5 & Revision                                | PT PMC 6 PT |                     |
|          |          | 0 . 1   | Revision, Home Assignment & Work Sheet                                   | PMC & PT    | CI TI               |
|          |          | October   |  | PMC         | Class Test          |
|          |          | (Puja<br>Vacation:<br>21st -31st)                         | Revision, Home Assignment & Work Sheet                                   | PT          |                     |
|          |          |   | Analog Electronics Practical Practice                                    | PMC & PT    |                     |
|          |          | November  | Revision   | PMC         |                     |
|          |          | (Puja<br>Vacation:<br>1st -16st)                          | Revision   | PT          |                     |
|          |          | December  | Revision & University Examination  | PMC         |                     |
|          |          | (Christmas 24 <sup>th</sup> – 31 <sup>st</sup> )          | Revision & University Examination  | PT          |                     |
|          | SEC A-2  | July  | 1.Fossil fuels and Alternate Sources of energy                           | PMC         | Class Test          |
|          |          |   | 2.Solar energy   | PT          |                     |
|          |          | August  | 3.Wind Energy harvesting, 4.Ocean Energy                                 | PMC         | Class Test          |
|          |          |   | 6.Hydro Energy 7. Piezoelectric Energy harvesting                        | PT          |                     |
|          |          | September   | 5.Geothermal Energy  | PMC         | Class Test          |
|          |          |   | 8. Electromagnetic energy harvesting, 9. Fuel Cell                       | PT          |                     |
|          |          | October   | Revision, Home Assignment & Work Sheet                                   | PMC         | Class Test          |
|          |          | (Puja<br>Vacation:<br>21st -31st)                         | Revision, Home Assignment & Work Sheet                                   | PT          |                     |
|          |          | November  | Revision, Home Assignment & Work Sheet                                   | PMC         |                     |
|          |          | (Puja<br>Vacation:<br>1 <sup>st</sup> -16 <sup>st</sup> ) | Revision, Home Assignment & Work Sheet                                   | PT          |                     |
|          |          | December<br>(Christmas                                    | Revision & University Examination  | PMC         |                     |
|          |          | $24^{th} - 31^{st}$                                       | Revision & University Examination  | PT          |                     |