##### THIRD SEMESTER : (MECHANICAL ENGINEERING)

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| --- | --- | --- | --- | --- | --- |
| **Sr.****No.** | **SUBJECTS** | **STUDY** **SCHEME****Periods/Week** | **Credits** | **MARKS IN EVALUATION SCHEME** | **Total Marks of****Internal & External** |
| **INTERNAL ASSESSMENT** | **EXTERNAL** **ASSESSMENT** |
| Th | **Pr** | Th | **Pr** | **Tot** | **Th** | **Hrs** | **Pr** | **Hrs** | **Tot** |
| 3.1 | \*Materials and Metallurgy | 4 | 2 | 5 | 25 | 25 | 50 | 100 | 3 | 50 | 3 | 150 | 200 |
| 3.2 | \*Applied Mechanics | 4 | 2 | 5 | 25 | 25 | 50 | 100 | 3 | 50 | 3 | 150 | 200 |
| 3.3 | \*Basics of Electrical and Electronics Engineering | 3 | 2 | 4 | 25 | 25 | 50 | 100 | 3 | 50 | 3 | 150 | 200 |
| 3.4 | Mechanical Engineering Drawing | - | 6 | 3 | - | 50 | 50 | 100 | 3 | 25(Viva) | 2 | 125 | 175 |
| 3.5 | \*Workshop Technology-I | 4 | - | 4 | 25 | - | 25 | 100 | 3 | - | - | 100 | 125 |
| 3.6 | Workshop Practice –I  | - | 9 | 4 | - | 100 | 100 | - | - | 100 | 3 | 100 | 200 |
|  Soft Skills- I | - | 4 | - | - | 25 | 25 | - | - | - | - | - | 25 |
| **Total** | 15 | **25** | 25 | 100 | **250** | **350** | **500** | **-** | **275** | **-** | **775** | **1125** |

\* Common with Diploma in Automobile Engineering

+ Includes 25 marks for viva-voce

##### FOURTH SEMESTER (MECHANICAL ENGINEERING)

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| --- | --- | --- | --- | --- | --- |
| **Sr.****No.** | **SUBJECTS** | **STUDY** **SCHEME****Periods/Week** | **Credits** | **MARKS IN EVALUATION SCHEME** | **Total Marks of****Internal & External** |
| **INTERNAL ASSESSMENT** | **EXTERNAL** **ASSESSMENT** |
| Th | **Pr** | Th | **Pr** | **Tot** | **Th** | **Hrs** | **Pr** | **Hrs** | **Tot** |
| 4.1 | \*Computer Aided Drafting | - | 3 | 1 | - | 50 | 50 | - | - | 50 | 3 | 50 | 100 |
| 4.2 | \*Strength of Materials  | 4 | 3 | 5 | 25 | 25 | 50 | 100 | 3 | 50 | 3 | 150 | 200 |
| 4.3 | Hydraulics and Pneumatics | 3 | 3 | 4 | 25 | 25 | 50 | 100 | 3 | 50 | 3 | 150 | 200 |
| 4.4 | Thermodynamics-I | 3 | 3 | 4 | 25 | 25 | 50 | 100 | 3 | 50 | 3 | 150 | 200 |
| 4.5 | Industrial Engineering | 3 | - | 3 | - | 25 | 25 | 100 | 3 | - | - | 100 | 125 |
| 4.6 | \*Workshop Technology –II | 4 | - | 4 | - | 25 | 25 | 100 | 3 | - | - | 100 | 125 |
| 4.7 | Workshop Practice-II  | - | 9 | 4 | - | 100 | 100 | - | - | 100 | 3 | 100 | 200 |
|  Soft Skills -II | - | 2 | - | - | 25 | 25 | - | - | - | - | - | 25 |
| **Total** | 17 | **23** | 25 | 75 | **300** | **375** | **500** | **-** | **300** | **-** | **800** | **1175** |

\* Common with Diploma in Automobile Engineering

Industrial Training

After examination of 4th Semester, the students shall go for training in a relevant industry/field organisation for a minimum period of 8 weeks and will prepare a diary. It shall be evaluated during 5th semester by his/her teacher for 100 marks. The students shall also prepare a report at the end of training and shall present it in a seminar, which will be evaluated for another 100 marks. This evaluation will be done by HOD and lecturer in charge – training in the presence of one representative from Industry/Sector Skill Council/Training and Placement Officer/Subject Expert from other institution.

##### FIFTH SEMESTER (MECHANICAL ENGINEERING)

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| **Sr.****No.** | **SUBJECTS** | **STUDY** **SCHEME****Periods/Week** | **Credits** | **MARKS IN EVALUATION SCHEME** | **Total Marks of****Internal & External** |
| **INTERNAL ASSESSMENT** | **EXTERNAL** **ASSESSMENT** |
| Th | **Pr** | Th | **Pr** | **Tot** | **Th** | **Hrs** | **Pr** | **Hrs** | **Tot** |
|  | Industrial Training | - | - | 5 | - | 100 | 100 | - | - | 100 | - | 100 | 200 |
| 5.1 | Theory of Machines | 3 | 2 | 4 | 25 | 25 | 50 | 100 | 3 | 50 | 3 | 150 | 200 |
| 5.2 | Refrigeration and Air-conditioning | 3 | 2 | 4 | 25 | 25 | 50 | 100 | 3 | 50 | 3 | 150 | 200 |
| 5.3 | Thermodynamics –II | 3 | 2 | 4 | 25 | 25 | 50 | 100 | 3 | 50 | 3 | 150 | 200 |
| 5.4 | Machine Design | 3 | - | 3 | 25 | - | 25 | 100 | 3 | - | - | 100 | 125 |
| 5.5 | CNC Machines and Automation | 4 | 2 | 5 | 25 | 25 | 50 | 100 | 3 | 50 | 3 | 150 | 200 |
| 5.6 | Workshop Technology-III | 3 | - | 3 | 25 | - | 25 | 100 | 3 | - | - | 100 | 125 |
| 5.7 | Workshop Practice –III  | - | 9 | 4 | - | 100 | 100 | - | - | 100 | 3 | 100 | 200 |
|  Soft Skills-III | - | 4 | - | - | 25 | 25 | - | - | - | - | - | 25 |
| **Total** | 19 | **21** | 32 | 150 | **325** | **475** | **600** | **-** | **400** | **-** | **1000** |  **1475** |

##### SIXTH SEMESTER (MECHANICAL ENGINEERING)

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| --- | --- | --- | --- | --- | --- |
| **Sr.****No.** | **SUBJECTS** | **STUDY** **SCHEME****Periods/Week** | **Credits** | **MARKS IN EVALUATION SCHEME** | **Total Marks of****Internal & External** |
| **INTERNAL ASSESSMENT** | **EXTERNAL** **ASSESSMENT** |
| Th | **Pr** | Th | **Pr** | **Tot** | **Th** | **Hrs** | **Pr** | **Hrs** | **Tot** |
| 6.1 | Automobile Engineering | 3 | 3 |  4 | 25 | 25 | 50 | 100 | 3 | 50 | - | 150 | 200 |
| 6.2 | Inspection and Quality Control | 3 | 3 | 4 | 25 | 25 | 50 | 100 | 3 | 50 | 3 | 150 | 200 |
| 6.3 | Estimation and Costing | 3 | - | 3 | 25 | - | 25 | 100 | 3 | - | - | 100 | 125 |
| 6.4 | \*Entrepreneurship Development and Management | 3 | - | 3 | 25 | - | 25 | 100 | 3 | - | - | 100 | 125 |
| 6.5 | +Elective | 4 | - | 4 | 25 | - | 25 | 100 | 3 | - | - | 100 | 125 |
| 6.6 | Project Work | - | 15 | 7 | - | 100 | 100 | - | - | 100 | 3 | 100 | 200 |
| Soft Skills - IV | - | 3 | - | - | 25 | 25 | - | - | - | - | - | 25 |
| **Total** | 16 | **24** | 25 | 125 | **175** | **300** | **500** | **-** | **200** | **-** | **700** | **1000** |

\* Common with other diploma programmes

+Elective: To choose any one from the following:

6.5.1 Plant Maintenance & Material Handling 6.5.2 Mechatronics 6.5.3 CAD/CAM