

7. STUDY AND EVALUATION SCHEME (MECHANICAL ENGINEERING – TOOL & DIE)

FIRST SEMESTER

| Sr. No | Subject | L T P Hrs/week | | | EVALUATION SCHEME | | | | | | Total Marks |
|----------------------------|----------------------------------|-------------------|---|----|------------------------|---------------|--------------------------------------|-----|---------------|-----|----------------|
| | | | | | Internal Assessment | | External Assessment (Examination) | | | | |
| | | | | | Theory | Practical | Written Paper | | Practical | | |
| | | | | | Max. Marks | Max. Marks | Max. Marks | Hrs | Max. Marks | Hrs | |
| 1 | Communication Skills -I | 3 | - | 2 | 25 | 25 | 100 | 3 | 50 | 2 | 200 |
| 2 | Applied Mathematics-I | 4 | 1 | - | 50 | - | 100 | 3 | - | - | 150 |
| 3 | Applied Physics - I | 4 | - | 2 | 25 | 25 | 100 | 3 | 50 | 3 | 200 |
| 4 | Applied Chemistry - I | 2 | - | 2 | 25 | 25 | 100 | 3 | 50 | 3 | 200 |
| 5 | Basics of Information Technology | - | - | 4 | - | 50 | - | - | 100 | 3 | 150 |
| 6 | Engineermg Drawing- I | - | - | 6 | - | 50 | 100 | 3 | 25 (Viva) | 2 | 175 |
| 7 | General Workshop Practice - I | - | - | 6 | - | 50 | - | - | *100 | 3 | 150 |
| Student Centred Activities | | - | - | 4 | - | 25 | - | - | - | - | 25 |
| Total | | 13 | 1 | 26 | 125 | 250 | 500 | - | 375 | - | 1250 |

* Including 25 marks for Viva-voce

SECOND SEMESTER

| Sr. No | Subject | L T P Hrs/week | | | EVALUATION SCHEME | | | | | | Total Marks |
|----------------------------|------------------------------|-------------------------|---|----|------------------------|---------------|--------------------------------------|-----|---------------|-----|----------------|
| | | | | | Internal Assessment | | External Assessment (Examination) | | | | |
| | | | | | Theory | Practical | Written Paper | | Practical | | |
| | | | | | Max. Marks | Max. Marks | Max. Marks | Hrs | Max. Marks | Hrs | |
| 1 | Communication Skills -II | 3 | - | 2 | 25 | 25 | 100 | 3 | 50 | 2 | 200 |
| 2 | Applied Mathematics-II | 4 | 1 | - | 50 | - | 100 | 3 | - | - | 150 |
| 3 | Applied Physics - II | 3 | - | 2 | 25 | 25 | 100 | 3 | 50 | 3 | 200 |
| 4 | Applied Chemistry - II | 2 | - | 2 | 25 | 25 | 100 | 3 | 50 | 3 | 200 |
| 5 | Applied Mechanics | 3 | - | 2 | 25 | 25 | 100 | 3 | 50 | 3 | 200 |
| 6 | Engineering Drawing - II | - | - | 6 | - | 50 | 100 | 3 | 25 (Viva) | 2 | 175 |
| 7 | General Workshop Practice-II | - | - | 6 | - | 50 | - | - | *100 | 3 | 150 |
| Student Centred Activities | | - | - | 4 | - | 25 | - | - | - | - | 25 |
| Total | | 15 | 1 | 24 | 150 | 225 | 600 | - | 325 | - | 1300 |

* Including 25 marks for Viva-voce

THIRD SEMESTER

| Sr. No | Subject | L T P Hrs/week | | | EVALUATION SCHEME | | | | | | Total Marks |
|----------------------------|---|-------------------|---|----|---------------------|------------|-----------------------------------|-----|------------|-----|-------------|
| | | | | | Internal Assessment | | External Assessment (Examination) | | | | |
| | | | | | Theory | Practical | Written Paper | | Practical | | |
| | | | | | Max. Marks | Max. Marks | Max. Marks | Hrs | Max. Marks | Hrs | |
| 3.1 | **Strength of Materials | 3 | 1 | 2 | 25 | 25 | 100 | 3 | 50 | 3 | 200 |
| 3.2 | + Press Tool - Design & Drawing | 3 | - | 4 | - | 50 | 100 | 3 | - | - | 150 |
| 3.3 | *Basics of Electrical and Electronics Engineering | 3 | - | 2 | 25 | 25 | 100 | 3 | 50 | 3 | 200 |
| 3.4 | *Workshop Technology I | 3 | - | - | 25 | - | 100 | 3 | - | - | 125 |
| 3.5 | *Machine Drawing | - | - | 6 | - | 50 | 100 | 3 | - | - | 150 |
| 3.6 | *Workshop Practice I | - | - | 9 | - | 100 | | - | 100 | 3 | 200 |
| Student centred Activities | | - | - | 4 | - | 25 | - | - | - | - | 25 |
| Total | | 12 | 1 | 27 | 75 | 275 | 500 | - | 200 | - | 1050 |

*Common with Mechanical Engineering/ Production Engineering

** Common with Mechanical Engineering

+ The question paper will consist of 2 parts: Section A and Section B. Section A will contain theory contents to the extent of 40%. Section B will contain design & drawing to the extent of 60%.

FOURTH SEMESTER

| Sr. No | Subject | L T P Hrs/week | | | EVALUATION SCHEME | | | | | | Total Marks |
|----------------------------|---|-------------------|---|----|---------------------|------------|-----------------------------------|-----|------------|-----|-------------|
| | | | | | Internal Assessment | | External Assessment (Examination) | | | | |
| | | | | | Theory | Practical | Written Paper | | Practical | | |
| | | | | | Max. Marks | Max. Marks | Max. Marks | Hrs | Max. Marks | Hrs | |
| 4.1 | *Materials and Metallurgy | 3 | - | 2 | 25 | 25 | 100 | 3 | 50 | 3 | 200 |
| 4.2 | **Hydraulic and Pneumatic Systems | 3 | - | 2 | 25 | 25 | 100 | 3 | 50 | 3 | 200 |
| 4.3 | +Jigs, Fixtures and Gauges - Design and Drawing | 3 | - | 2 | - | 50 | 100 | 3 | - | - | 150 |
| 4.4 | *Workshop Technology -II | 3 | - | - | 25 | - | 100 | 3 | - | - | 125 |
| 4.5 | *Inspection & Quality Control | 3 | - | 2 | 25 | 25 | 100 | 3 | 50 | 3 | 200 |
| 4.6 | *Workshop Practice-II | - | - | 9 | - | 100 | - | - | 100 | 3 | 200 |
| 4.7 | CAD- I | - | - | 4 | - | 50 | - | - | 100 | 3 | 150 |
| Student Centred Activities | | - | - | 4 | - | 25 | - | - | - | - | 25 |
| Total | | 15 | - | 25 | 100 | 300 | 500 | - | 350 | - | 1250 |

*Common with Mechanical Engineering/Production Engineering.

** Common with Production Engineering.

+ The question paper will consist of 2 parts: Section A and Section B. Section A will contain theory contents to the extent of 40%. Section B will contain design & drawing to the extent of 60%.

FIFTH SEMESTER

| Sr. No | Subject | L T P Hrs/week | | | EVALUATION SCHEME | | | | | | Total Marks |
|----------------------------|--|-------------------|---|----|---------------------|-----------|-----------------------------------|------------|-----------|-----|-------------|
| | | | | | Internal Assessment | | External Assessment (Examination) | | | | |
| | | | | | | | Written Paper | | Practical | | |
| | | | | | Theory | Practical | Max. Marks | Max. Marks | Max. Mars | Hrs | |
| - | Industrial training for 4 weeks during Vacations | | | | - | 100 | - | - | 100 | 3 | 200 |
| 5.1 | Heat Treatment | 2 | - | 2 | 25 | 25 | 100 | 3 | 50 | 3 | 200 |
| 5.2 | +Plastic Mould-Design and Drawing | 2 | - | 4 | - | 50 | 100 | 3 | - | - | 150 |
| 5.3 | Estimating & Costing | 3 | - | - | 25 | - | 100 | 3 | - | - | 125 |
| 5.4 | * Workshop Technology –III | 3 | - | - | 25 | - | 100 | 3 | - | - | 125 |
| 5.5 | *CNC Machines & Automation | 3 | - | 0 | 25 | 25 | 100 | 3 | 50 | 3 | 200 |
| 5.6 | *Workshop Practice -III | - | - | 9 | - | 100 | - | - | 100 | 3 | 200 |
| 5.7 | CAD-II | - | - | 6 | - | 50 | - | - | 100 | 3 | 150 |
| Student Centred Activities | | - | - | 6 | - | 25 | - | - | - | - | 25 |
| Total | | 13 | - | 27 | 100 | 375 | 500 | - | 400 | - | 1375 |

*Common with Mechanical Engineering / Production Engineering.

⁺ The question paper will consist of 2 parts: Section A and Section B. Section A will contain theory contents to the extent of 40%. Section B will contain design & drawing to the extent of 60%.

SIXTH SEMESTER

| Sr. No | Subject | L T P Hrs/week | | | EVALUATION SCHEME | | | | | | Total Marks |
|----------------------------|--|-------------------|---|----|---------------------|------------|-----------------------------------|-----|------------|-----|-------------|
| | | | | | Internal Assessment | | External Assessment (Examination) | | | | |
| | | | | | | | Written Paper | | Practical | | |
| | | | | | Max. Marks | Max. Marks | Max. Marks | Hrs | Max. Marks | Hrs | |
| 6.1 | * Industrial Management | 3 | - | - | 50 | - | 100 | 3 | - | - | 150 |
| 6.2 | +Forging & die casting dies-Design and Drawing | 3 | - | 4 | - | 50 | 100 | 3 | - | - | 150 |
| 6.3 | *Computer Integrated Manufacturing | 2 | - | 4 | - | 50 | - | - | 50 | 3 | 100 |
| 6.4 | Workshop Practice -IV | - | - | 8 | - | 50 | - | - | 100 | 3 | 150 |
| 6.5 | *Industrial Engineering | 4 | - | - | 50 | - | 100 | 3 | - | - | 150 |
| 6.6 | Project Work | - | - | 8 | - | 100 | - | - | 100 | 3 | 200 |
| Student Centred Activities | | - | - | 4 | - | 25 | - | - | - | - | 25 |
| Total | | 12 | - | 28 | 100 | 275 | 300 | - | 250 | - | 925 |

* Common with Mechanical Engineering/Production Engineering.

⁺ The question paper will consist of 2 parts: Section A and Section B. Section A will contain theory contents to the extent of 40%. Section B will contain design & drawing to the extent of 60%.

8. DETAILED CONTENTS

