

II B.TECH.(4YDC) MECHANICAL ENGINEERING

Semester: III

| S. No. | Subject Category | Subject Code | Subject Name | Periods per Week | | | Credits | | Max Marks | | | | |
|---------------------|------------------|--------------|--|------------------|---|---|---------|----|-----------|-----|-----------|-----|-------|
| | | | | L | T | P | Th | Pr | Theory | | Practical | | Total |
| | | | | | | | | | Th. | CW | SW | Pr. | |
| 1 | PCC | ME26011 | Fluid Mechanics | 4 | | 2 | 3 | 1 | 70 | 30 | 40 | 60 | 200 |
| 2 | PCC | ME26002 | Strength of Materials | 4 | - | 2 | 3 | 1 | 70 | 30 | 40 | 60 | 200 |
| 3 | BSC | MA26004 | Mathematics -III | 4 | 1 | - | 4 | - | 70 | 30 | - | - | 100 |
| 4 | PCC | ME26008 | Material Science | 4 | - | 2 | 3 | 1 | 70 | 30 | 40 | 60 | 200 |
| 5 | PCC | ME26005 | Engineering Thermodynamics | 4 | - | 2 | 3 | 1 | 70 | 30 | 40 | 60 | 200 |
| 6 | HSMC | HU26481 | Values, Humanity and Professional Ethics | 0 | 3 | 0 | 2 | - | 0 | 100 | - | - | 100 |
| Total | | | | 20 | 4 | 8 | 18 | 4 | 350 | 250 | 160 | 240 | 1000 |
| Optional Subject(s) | | | | | | | | | | | | | |
| 7 | | OC-I | Open Category-I (Audit Only) | - | - | - | - | - | - | - | - | - | |

Semester: IV

| S. No. | Subject Category | Subject Code | Subject Name | Periods per Week | | | Credits | | Max Marks | | | | |
|---------------------|------------------|--------------|-------------------------------------|------------------|---|----|---------|----|-----------|-----|-----------|-----|-------|
| | | | | L | T | P | Th | Pr | Theory | | Practical | | Total |
| | | | | | | | | | Th. | CW | SW | Pr. | |
| 1 | BSC | MA26556 | Mathematics-IV | 4 | 1 | - | 4 | - | 70 | 30 | - | - | 100 |
| 2 | PCC | ME26551 | Machine Design - I | 4 | - | 2 | 3 | 1 | 70 | 30 | 40 | 60 | 200 |
| 3 | PCC | ME26562 | Kinematics of Machine | 4 | - | 2 | 3 | 1 | 70 | 30 | 40 | 60 | 200 |
| 4 | ESC | EC26563 | Basic Electronics Engineering | 4 | - | 2 | 3 | 1 | 70 | 30 | 40 | 60 | 200 |
| 5 | PCC | IP26552 | Manufacturing Processes -I | 4 | - | 2 | 3 | 1 | 70 | 30 | 40 | 60 | 200 |
| 6 | HSMC | HU26507 | Economics for Engineers | 4 | - | - | 3 | - | 70 | 30 | | | 100 |
| 7 | PCC | ME26881 | Machine Drawing & Computer Graphics | - | | 2 | - | 1 | - | - | 40 | 60 | 100 |
| Total | | | | 24 | 1 | 10 | 19 | 5 | 420 | 180 | 200 | 300 | 1100 |
| Optional Subject(s) | | | | | | | | | | | | | |
| 7 | | OC-II | Open Category-II (Audit Only) | - | - | - | - | - | - | - | - | - | |

Internship of 4-6 weeks between semester IV & semester V.

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III B.E.(4YDC) MECHANICAL ENGINEERING

SEMESTER - V

| S. No. | Subject Category | Sub. Code | Subject | Periods per Week | | | Th. Credit | Pr. Credit | Maximum Marks | | | | |
|---------------------|------------------|-----------|-----------------------------------|------------------|---|---|------------|------------|---------------|-----|-----|-----|-------|
| | | | | L | T | P | | | Th. | CW | SW | Pr. | Total |
| 1 | PCC | ME36011 | Dynamics of Machines | 4 | 1 | 2 | 4 | 1 | 70 | 30 | 40 | 60 | 200 |
| 2 | PCC | ME36003 | Measurement & Automatic Control | 4 | - | 2 | 3 | 1 | 70 | 30 | 40 | 60 | 200 |
| 3 | PCC | ME36006 | Heat & Mass Transfer | 4 | - | 2 | 3 | 1 | 70 | 30 | 40 | 60 | 200 |
| 4 | PCC | ME36057 | Power Plant and Energy Management | 4 | - | | 3 | - | 70 | 30 | - | - | 100 |
| 5 | PCC | IP36062 | Manufacturing Processes-II | 4 | | 2 | 3 | 1 | 70 | 30 | 40 | 60 | 200 |
| Total | | | | 20 | 1 | 8 | 16 | 4 | 350 | 150 | 160 | 240 | 900 |
| Optional Subject(s) | | | | | | | | | | | | | |
| 7 | OC-III | OC-III | - | - | - | - | - | - | - | - | - | - | - |

SEMESTER - VI

| S. No. | Subject Category | Sub. Code | Subject | Periods per Week | | | Th. | Pr. | Maxi Th. | CW | SW | Pr. | Total |
|---------------------|------------------|-----------|--|------------------|---|----|-----|-----|----------|-----|-----|-----|-------|
| | | | | L | T | P | | | | | | | |
| 1 | PCC | ME36501 | Refrigeration and Airconditioning | 4 | - | 2 | 3 | 1 | 70 | 30 | 40 | 60 | 200 |
| 2 | PCC | ME36503 | Machine Design - II | 4 | - | 4 | 3 | 2 | 70 | 30 | 40 | 60 | 200 |
| 3 | PCC | ME36506 | Fluid Machinery | 4 | - | 2 | 3 | 1 | 70 | 30 | 40 | 60 | 200 |
| 4 | PEC | ME36509 | Internal Combustion Engines | 4 | - | 2 | 3 | 1 | 70 | 30 | 40 | 60 | 200 |
| 5 | HSMC | IP36504 | Industrial Engineering and Production Management | 4 | - | | 3 | - | 70 | 30 | - | - | 100 |
| 6 | PROJ | ME36581 | Industrial Training/ Minor Project | - | - | 4 | 0 | 2 | - | - | 100 | 0 | 100 |
| Total | | | | 20 | 0 | 14 | 15 | 7 | 350 | 150 | 260 | 240 | 1000 |
| Optional Subject(s) | | | | | | | | | | | | | |
| 7 | | OC-IV | - | - | - | - | - | - | - | - | - | - | - |

Internship of 4-6 weeks between semester VI & semester VII.

Scheme
2018

IV B.Tech.(4YDC) MECHANICAL ENGINEERING

SEMESTER - VII

| S. No. | Sub. Code | Subject | Periods per Week | | | Th. Credit | Pr. Credit | Maximum Marks | | | | |
|--------|-----------|-----------------------------------|------------------|---|----|---------------|---------------|---------------|-----|-----|-----|-------|
| | | | L | T | P | | | Th. | CW | SW | Pr. | Total |
| 1 | ME46008 | Automobile Engg. | 4 | 1 | 2 | 4 | 1 | 70 | 30 | 40 | 60 | 200 |
| 2 | ME46061 | Vibration and Noise Control: | 4 | 1 | 2 | 4 | 1 | 70 | 30 | 40 | 60 | 200 |
| 3 | ME46010 | Computer Aided Design | 4 | 1 | 2 | 4 | 1 | 70 | 30 | 40 | 60 | 200 |
| 4 | | Elective-I | 4 | 1 | 0 | 4 | 0 | 70 | 30 | 0 | 0 | 100 |
| 5 | | Elective-II | 4 | 1 | 0 | 4 | 0 | 70 | 30 | 0 | 0 | 100 |
| 7 | ME46499 | Major Project Phase-I (AB group) | - | - | 6 | - | 3 | 0 | 0 | 60 | 90 | 150 |
| 8 | ME46999 | Major Project Phase-II (BA Group) | - | - | 10 | - | 5 | 0 | 0 | 60 | 90 | 150 |
| Total | | For AB Group | 20 | 5 | 12 | 20 | 6 | 350 | 150 | 180 | 270 | 950 |
| | | For BA Group | 20 | 5 | 16 | 20 | 8 | 350 | 150 | 180 | 270 | 950 |

SEMESTER - VIII

| S. No. | Sub. Code | Subject | Periods per Week | | | Th. Credit | Pr. Credit | Maximum Marks | | | | |
|--------|-----------|---|------------------|---|----|---------------|---------------|---------------|----|-----|-----|-------|
| | | | L | T | P | | | Th. | CW | SW | Pr. | Total |
| 1 | | Elective III | 4 | 1 | 0 | 4 | 0 | 70 | 30 | 0 | 0 | 100 |
| 2 | | Elective IV | 4 | 1 | 0 | 4 | 0 | 70 | 30 | 0 | 0 | 100 |
| 3 | ME46881 | Industrial Training/Internship/Seminar* | - | - | - | - | 8 | - | - | 100 | - | 100 |
| 4 | ME46999 | Major Project Phase- II (AB Group) | - | - | 10 | - | 5 | 0 | 0 | 60 | 90 | 150 |
| 5 | ME46499 | Major Project Phase-I (BA group) | - | - | 6 | - | 3 | 0 | 0 | 60 | 90 | 150 |
| Total | | For AB Group | 8 | 2 | 10 | 8 | 13 | 140 | 60 | 160 | 90 | 450 |
| | | For BA Group | 8 | 2 | 6 | 8 | 11 | 140 | 60 | 160 | 90 | 450 |

IV B.Tech.(4YDC) MECHANICAL ENGINEERING

| Elective-I | | SEMESTER - VII |
|------------|-----------|-------------------------------------|
| S.No. | Sub. Code | Subject |
| 1 ✓ | ME46258 | Mechatronics(ME4658) |
| 2 | ME46204 | Computational Fluid Dynamics |
| 3 | ME46201 | Industrial Tribology |
| 4 | ME46202 | Industrial Engineering & Management |
| 5 | ME46203 | Manufacturing Automation & CAM |

| Elective-II | | SEMESTER - VII |
|-------------|-----------|--|
| S.No. | Sub. Code | Subject |
| 1 | ME46302 | Design of Air Conditioning Equipments |
| 2 ✓ | ME 46325 | Hydraulic, Pneumatic & Fluidic Control |
| 3 | ME46303 | Bio - Mechanics |
| 4 | ME46301 | Design of Thermal System |
| 5 | | |

IV B.Tech.(4YDC) MECHANICAL ENGINEERING

| Elective-III | | SEMESTER - VIII |
|--------------|-----------|--|
| S.No. | Sub. Code | Subject |
| 1 | ✓ ME46677 | Composite Materials(ME4677) |
| 2 | ME46601 | Renewable Energy Sources |
| 3 | ME46602 | Industrial Inspection & Quality Control(PE 4674) |
| 4 | ✓ ME46678 | Finite Element Methods(ME4678) |

| Elective-IV | | SEMESTER - VIII |
|-------------|-----------|---|
| S.No. | Sub. Code | Subject |
| 1 | ✓ ME46701 | Gas Dynamics & Fluid Flow |
| 2 | ME46702 | Engineering Optimization(ME4628) |
| 3 | ME46703 | Maintenance Engineering |
| 4 | ✓ ME46757 | Power Plant and Energy Management(ME4657) |

ME46714 Design of Thermal Systems

(Added in ^{APR} 2022 for customized scheme).