

**BE (Mechanical Engineering) Curriculum**

Minimum Credits to be Earned: 165

Semester I								
S. No.	Course Code	Course Title	Category	Contact Hours	Instruction Hours/Week			C
					L	T	P	
<b>THEORY</b>								
1	23SEN101	Heritage of Tamils	HS	1	1	0	0	1
2	23SEN103	Technical English – I	HS	4	3	1	0	4
3	23SMA101	Matrices and Calculus	BS	4	3	1	0	4
4	23SPH112	Physics for Mechanical Sciences	BS	3	3	0	0	3
5	23ADR104	Problem Solving and Python Programming	ES	3	3	0	0	3
6	23MER101	Engineering Drawing	ES	3	2	1	0	3
<b>LABORATORY</b>								
7	23ADR111	Problem Solving and Python Programming Laboratory	ES	2	0	0	2	1
8	23MER107	Engineering Practices Laboratory	ES	2	0	0	2	1
<b>TOTAL</b>				<b>22</b>	<b>15</b>	<b>3</b>	<b>4</b>	<b>20</b>

Semester II								
S. No.	Course Code	Course Title	Category	Contact Hours	Instruction Hours/Week			C
					L	T	P	
<b>THEORY</b>								
1	23SEN202	Tamils and Technology	HS	1	1	0	0	1
2	23SEN205	Technical English – II	HS	3	3	0	0	3
3	23SMA204	Transforms and its Applications	BS	4	3	1	0	4
4	23SCH115	Environmental Science for Engineers	BS	3	3	0	0	3
5	23MER202	Engineering Mechanics	ES	4	3	1	0	4
6	23MER203	Fundamentals of Automotive Technology	ES	3	3	0	0	3
<b>LABORATORY</b>								
7	23SEN217	Communication Skills Laboratory	HS	2	0	0	2	1
8	23SPH122	Physical Sciences Laboratory	BS	2	0	0	2	1
9	23MER208	Innovation Practices Laboratory	ES	2	0	0	2	1
<b>TOTAL</b>				<b>24</b>	<b>16</b>	<b>2</b>	<b>6</b>	<b>21</b>

Semester III								
S. No.	Course Code	Course Title	Category	Contact Hours	Instruction Hours/Week			C
					L	T	P	
<b>THEORY</b>								
1	23SMA307	Numerical Methods	BS	4	3	1	0	4
2	23EER303	Electron Devices and Sensors	ES	3	3	0	0	3
3	23MER308	Engineering Thermodynamics	PC	4	3	1	0	4
4	23MER309	Fluid Mechanics and Machinery	PC	4	3	1	0	4
5	23MER310	Conventional and Digital Manufacturing	PC	3	3	0	0	3
6	23SMX301	Indian Constitution	MC	1	1	0	0	-
<b>LABORATORY</b>								
7	23EER307	Electron Devices and Sensors Laboratory	ES	2	0	0	2	1
8	23MER320	Fluid Mechanics and Machinery Laboratory	PC	2	0	0	2	1
9	23MER321	Conventional and Digital Manufacturing Laboratory	PC	2	0	0	2	1
10	23EXC301	Life Skills – I	EEC	2	0	0	2	1
<b>TOTAL</b>				<b>27</b>	<b>16</b>	<b>3</b>	<b>8</b>	<b>22</b>

Semester IV								
S. No.	Course Code	Course Title	Category	Contact Hours	Instruction Hours/Week			C
					L	T	P	
<b>THEORY</b>								
1	23SMA409	Probability and Statistics	BS	4	3	1	0	4
2	23ADR110	Artificial Intelligence and Machine Learning	ES	3	3	0	0	3
3	23MER411	MEMS and NEMS	PC	4	3	1	0	4
4	23MER412	Strength of Materials	PC	4	3	1	0	4
5	23MER413	Thermal Engineering	PC	3	3	0	0	3
6	23EXC411	Design Thinking	EEC	1	1	0	0	1
7	23SMX402	Essence of Indian Traditional Knowledge	MC	1	1	0	0	-
<b>LABORATORY</b>								
8	23ADR112	Artificial Intelligence and Machine Learning Laboratory	ES	2	0	0	2	1
9	23MER422	Strength of Materials Laboratory	PC	2	0	0	2	1
10	23MER423	Thermal Engineering Laboratory	PC	2	0	0	2	1
11	23MER424	Machine Drawing with GD&T	PC	2	0	0	2	1
12	23EXC402	Life Skills – II	EEC	2	0	0	2	1
<b>TOTAL</b>				<b>30</b>	<b>17</b>	<b>3</b>	<b>10</b>	<b>24</b>

Semester V								
S. No.	Course Code	Course Title	Category	Contact Hours	Instruction Hours/Week			C
					L	T	P	
<b>THEORY</b>								
1	23MER514	Theory of Machines	PC	4	3	1	0	4
2	23MER515	Design of Machine Elements	PC	4	3	1	0	4
3	23MER516	Heat and Mass Transfer	PC	4	3	1	0	4
4	23MER517	Engineering Materials and Metallurgy	PC	3	3	0	0	3
5	23XXXXXX	Open Elective – I	OE	3	3	0	0	3
<b>LABORATORY</b>								
6	23MER525	Theory of Machines Laboratory	PC	2	0	0	2	1
7	23MER526	Heat and Mass Transfer Laboratory	PC	2	0	0	2	1
8	23MER527	Engineering Materials and Metallurgy Laboratory	PC	2	0	0	2	1
9	23EXC503	Life Skills – III	EEC	2	0	0	2	1
10	23EXCXXX	Internship – I/Mini Project - I	EEC	2	0	0	2	1
<b>TOTAL</b>				<b>28</b>	<b>15</b>	<b>3</b>	<b>10</b>	<b>23</b>

Semester VI								
S. No.	Course Code	Course Title	Category	Contact Hours	Instruction Hours/Week			C
					L	T	P	
<b>THEORY</b>								
1	23MER618	Design of Transmission Systems	PC	4	3	1	0	4
2	23XXXXXX	Open Elective – II	OE	4	3	1	0	4
3	23XXXXXX	Open Elective – III	OE	3	3	0	0	3
4	23MEPXXX	Professional Elective – I	PE	3	3	0	0	3
5	23MEPXXX	Professional Elective – II	PE	3	3	0	0	3
6	23MEPXXX	Professional Elective – III	PE	4	3	1	0	4
7	23MEPXXX	Professional Elective – IV	PE	3	3	0	0	3
<b>LABORATORY</b>								
8	23EXCXXX	Internship – II/Mini Project – II	EEC	2	0	0	2	1
<b>TOTAL</b>				<b>26</b>	<b>21</b>	<b>3</b>	<b>2</b>	<b>25</b>

Semester VII								
S. No.	Course Code	Course Title	Category	Contact Hours	Instruction Hours/Week			C
					L	T	P	
<b>THEORY</b>								
1	23SGE713	Principles of Management and Engineering Ethics	HS	3	3	0	0	3
2	23MER719	Industrial Automation and IoT	PC	3	3	0	0	3
3	23MEPXXX	Professional Elective – V	PE	3	3	0	0	3
4	23MEPXXX	Professional Elective – VI	PE	3	3	0	0	3
5	23XXXXXX	Open Elective – IV	OE	3	3	0	0	3
6	23XXXXXX	Open Elective – V	OE	3	3	0	0	3
<b>LABORATORY</b>								
7	23MER728	Industrial Automation and IoT Laboratory	PC	2	0	0	2	1
8	23EXC709	Project Work – Phase I	EEC	4	0	0	4	2
<b>TOTAL</b>				<b>24</b>	<b>18</b>	<b>0</b>	<b>6</b>	<b>21</b>

Semester VIII								
S. No.	Course Code	Course Title	Category	Contact Hours	Instruction Hours/Week			C
					L	T	P	
<b>LABORATORY</b>								
1	23EXC810	Project Work – Phase II	EEC	20	0	0	20	10
<b>TOTAL</b>				<b>20</b>	<b>0</b>	<b>0</b>	<b>20</b>	<b>10</b>

<b>Total Credits</b>	<b>165</b>
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