

**VIDHYADEEP UNIVERSITY**  
**PROPOSED TEACHING SCHEME FOR B.TECH. COURSE AY- 2023-24**  
**MECHANICAL ENGINEERING**

SEMESTER / YEAR		BE - 1 SEM - 1													
Sr. No.	Subject Code	Subject Name	Sub. Category	Teaching Scheme					Examination Scheme					Total Marks	
				(Hrs/Week)					External Marks		Internal Marks				
				L	T	P	Total	Credit	TH	PR	FA	CAT	CAP		
1	002396101	INDUCTION PROGRAMME	MC - I	0	0	0	0	0	0	0	0	0	0	0	0
2	002391101	ENGINEERING MATHEMATICS - I*	BSC - I	3	2	0	5	5	60	0	0	40	0	100	
3	002391103	SOFT SKILL DEVELOPMENT - I	HSMC-I	0	2	0	2	2	0	0	30	70	0	100	
4	002396103	ENVIRONMENTAL STUDIES	MC - II	2	0	0	2	0	0	0	30	70	0	100	
5	0023021	WORKSHOP - MECHANICAL / ICT	ESC -I- LC	0	0	2	2	1	0	30	0	0	20	50	
6	<b>STUDENT HAS TO MANDATORILY CHOOSE ANY THREE SUBJECTS ALONG WITH IT'S LABORATORY IN FIRST SEMESTER AND REMAINING THREE IN SECOND SEMESTER FROM THE SUBJECT POOL (A)**</b>														
7															
8															
<b>Total</b>				<b>5</b>	<b>4</b>	<b>2</b>	<b>11</b>	<b>8</b>	<b>60</b>	<b>30</b>	<b>60</b>	<b>180</b>	<b>20</b>	<b>350</b>	

SEMESTER / YEAR		BE - 1 SEM - 2												
Sr. No.	Subject Code	Subject Name	Sub. Category	Teaching Scheme					Examination Scheme					Total Marks
				(Hrs/Week)					External Marks		Internal Marks			
				L	T	P	Total	Credit	TH	PR	FA	CAT	CAP	
1	002396201	BASICS OF INNOVATION & ENTREPRENEURSHIP	MC - III	2	0	0	2	0	0	0	30	70	0	100
2	002391201	ENGINEERING MATHEMATICS - II*	BSC - II	3	2	0	5	5	60	0	0	40	0	100
3	002391203	SOFT SKILL DEVELOPMENT - II	HSMC-II	0	2	0	2	2	0	0	30	70	0	100
4	<b>STUDENT HAS TO MANDATORILY CHOOSE ANY THREE SUBJECTS ALONG WITH IT'S LABORATORY IN FIRST SEMESTER AND REMAINING THREE IN SECOND SEMESTER FROM THE SUBJECT POOL (A)**</b>													
5														

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**MECHANICAL ENGINEERING**

SEMESTER / YEAR		BE - 1 SEM - 1												
Sr. No.	Subject Code	Subject Name	Sub. Category	Teaching Scheme					Examination Scheme					Total Marks
				(Hrs/Week)					External Marks		Internal Marks			
				L	T	P	Total	Credit	TH	PR	FA	CAT	CAP	
6														
<b>Total</b>				5	4	0	9	7	60	0	60	180	0	300

**THE SUBJECT POOL (A)**

Sr. No.	Subject Code	Subject Name	Sub. Category	L	T	P	Total	Credit	TH	PR	FA	CAT	CAP	Total Marks
1	002391105	ENGINEERING PHYSICS	BSC - III	3	1	0	4	4	60	0	0	40	0	100
2	002304101	PROGRAMMING FOR PROBLEM SOLVING	ESC - I	2	0	0	2	2	60	0	0	40	0	100
3	002302101	BASIC OF MECHANICAL ENGINEERING	ESC - II	3	0	0	3	3	60	0	0	40	0	100
4	002391106	ENGINEERING PHYSICS LAB*	BSC - LC - III	0	0	2	2	1	0	30	0	0	20	50
5	002304102	PROGRAMMING FOR PROBLEM SOLVING LAB	ESC - LC - I	0	0	4	4	2	0	30	0	0	20	50
6	002302102	BASIC OF MECHANICAL ENGINEERING LAB	ESC - LC - II	0	0	2	2	1	0	30	0	0	20	50
7	002302201	ENGINEERING GRAPHICS & CAD	ESC - III	2	0	0	2	2	60	0	0	40	0	100
8	002303203	BASIC OF ELECTRICAL ENGINEERING	ESC - V	3	1	0	4	4	60	0	0	40	0	100
9	002301201	BASIC CIVIL ENGINEERING	ESC - IV	3	0	0	3	3	60	0	0	40	0	100
10	002302201	ENGINEERING GRAPHICS & CAD LAB	ESC - LC - III	0	0	4	4	2	0	30	0	0	20	50
11	002303204	BASIC OF ELECTRICAL ENGINEERING LAB	ESC - LC - V	0	0	2	2	1	0	30	0	0	20	50

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**PROPOSED TEACHING SCHEME FOR B.TECH. COURSE AY- 2023-24**  
**MECHANICAL ENGINEERING**

SEMESTER / YEAR		BE - 1 SEM - 1												
Sr. No.	Subject Code	Subject Name	Sub. Category	Teaching Scheme					Examination Scheme					Total Marks
				(Hrs/Week)					External Marks		Internal Marks			
				L	T	P	Total	Credit	TH	PR	FA	CAT	CAP	
12	002301202	BASIC CIVIL ENGINEERING LAB	ESC - LC - IV	0	0	2	2	1	0	30	0	0	20	50
<b>Total</b>				16	2	16	34	26	360	180	0	240	120	900

**VIDHYADEEP UNIVERSITY**  
**PROPOSED TEACHING SCHEME FOR B.TECH. COURSE**  
**MECHANICAL ENGINEERING**

SEMESTER / YEAR		BE - 2 SEM - 3												
Sr. No.	Subject Code	Subject Name	Sub. Category	Teaching Scheme					Examination Scheme					Total Marks
				(Hrs/Week)					External Marks		Internal Marks			
				L	T	P	Total	Credit	TH	PR	FA	CAT	CAP	
1	002396101	CONSTITUTION OF INDIA	MC-IV	2	0	0	2	0	0	0	30	70	0	100
2	002391301	MEDIA CULTURE AND SOCIETY	HSMC- III	3	0	0	3	3	0	0	30	70	0	100
3	002391303	APPLIED MATHEMATICS FOR MECHANICAL ENGINEERING*	BSC - IV	3	2	0	5	5	60	0	0	40	0	100
4	002302301	ENGINEERING MECHANICS	ESC - VI	3	0	0	3	3	0	0	30	70	0	100
5	002302302	ENGINEERING MECHANICS - LAB	ESC - VI - LC	0	0	2	2	1	60	0	0	40	0	100
STUDENT HAS TO MANDATORILY CHOOSE MINIMUM THREE AND MAXIMUM FOUR SUBJECTS FROM SUBJECT POOL (B) ALONG WITH IT'S LABORATORY SUCH THAT CREDIT IN A SEMESTER DOES NOT EXCEED 25 & WEEKLY TEACHING LOAD SHOULD NOT EXCEED 30 HRS**														
<b>Total</b>				11	2	2	15	12	120	0	90	290	0	500
SEMESTER / YEAR		BE - 2 SEM - 4												
Sr. No.	Subject Code	Subject Name	Sub. Category	Teaching Scheme					Examination Scheme					Total Marks
				(Hrs/Week)					External Marks		Internal Marks			
				L	T	P	Total	Credit	TH	PR	FA	CAT	CAP	
1	002391401	UHV - II	HSMC - IV	2	1	0	3	3	0	0	30	70	0	100
2	002391405	ENGINEERING - SOCIETAL & GLOBAL IMPACT	HSMC - V	0	2	0	2	2	0	0	30	70	0	100
3	002396403	CYBER SECURITY	MC - V	2	0	0	2	0	0	0	30	70	0	100
4	002302401	MANUFACTURING PROCESS- I	PCC - I	3	0	0	3	3	60	0	0	40	0	100
5	002302402	MANUFACTURING PROCESS- I - LAB	PCC - LC - I	0	0	2	2	1	0	30	0	0	20	50
STUDENT HAS TO MANDATORILY CHOOSE MINIMUM THREE AND MAXIMUM FOUR SUBJECTS FROM SUBJECT POOL (B) ALONG WITH IT'S LABORATORY SUCH THAT CREDIT IN A SEMESTER DOES NOT EXCEED 25 & WEEKLY TEACHING LOAD SHOULD NOT EXCEED 30 HRS**														
<b>Total</b>				7	3	2	12	9	60	30	90	250	20	450

SEMESTER / YEAR		BE - 3 SEM - 5												
Sr. No.	Subject Code	Subject Name	Sub. Category	Teaching Scheme					Examination Scheme					Total Marks
				(Hrs/Week)					External Marks		Internal Marks			
				L	T	P	Total	Credit	TH	PR	FA	CAT	CAP	
1	0023025XX	PROFESSIONAL ELECTIVE - I	PE - I	3	0	0	3	3	60	0	0	40	0	100
2	0023025XX	PROFESSIONAL ELECTIVE - I - LAB	PE - LC - I	0	0	2	2	1	0	30	0	0	20	50
3	002398501	ROAD SAFETY & MANAGEMENT (INTER DEPARTMENT)	OE - I	3	0	0	3	3	60	0	0	40	0	100
4	002302501	MANUFACTURING PROCESS- II	PCC - II	3	0	0	3	3	60	0	0	40	0	100
5	002302502	MANUFACTURING PROCESS- II - LAB	PCC - LC - II	0	0	2	2	1	0	30	0	0	20	50
STUDENT HAS TO MANDATORILY CHOOSE MINIMUM THREE AND MAXIMUM FOUR SUBJECTS FROM SUBJECT POOL (B) ALONG WITH IT'S LABORATORY SUCH THAT CREDIT IN A SEMESTER DOES NOT EXCEED 25 & WEEKLY TEACHING LOAD SHOULD NOT EXCEED 30 HRS**														
<b>Total</b>				9	0	4	13	11	180	60	0	120	40	400
SEMESTER / YEAR		BE - 3 SEM - 6												
Sr. No.	Subject Code	Subject Name	Sub. Category	Teaching Scheme					Examination Scheme					Total Marks
				(Hrs/Week)					External Marks		Internal Marks			
				L	T	P	Total	Credit	TH	PR	FA	CAT	CAP	
1	0023026XX	PROFESSIONAL ELECTIVE - II	PE - II	3	0	0	3	3	60	0	0	40	0	100
2	0023026XX	PROFESSIONAL ELECTIVE - II - LC	PE - II - LC	0	0	2	2	1	0	30	0	0	20	50
3	0023026XX	PROFESSIONAL ELECTIVE - III	PE - III	3	0	0	3	3	60	0	0	40	0	100
4	0023026XX	PROFESSIONAL ELECTIVE - III - LC	PE - III - LC	0	0	2	2	1	0	30	0	0	20	50
5	0023986XX	OPEN ELECTIVE - II	OE - II	3	0	0	3	3	60	0	0	40	0	100
6	0023986XX	OPEN ELECTIVE - III	OE - III	3	0	0	3	3	60	0	0	40	0	100
7	002302601	BASICS OF INDUSTRIAL ENGINEERING	PCC- III	3	0	0	3	3	60	0	0	40	0	100
<b>Total</b>				15	0	4	19	17	300	60	0	200	40	600
SEMESTER / YEAR		BE - 4 SEM - 7												

Sr. No.	Subject Code	Subject Name	Sub. Category	Teaching Scheme					Examination Scheme					Total Marks
				(Hrs/Week)					External Marks		Internal Marks			
				L	T	P	Total	Credit	TH	PR	FA	CAT	CAP	
1	0023027XX	PROFESSIONAL ELECTIVE - 4	PE - IV	3	0	0	3	3	60	0	0	40	0	100
2	0023027XX	PROFESSIONAL ELECTIVE - 5	PE - V	3	0	0	3	3	60	0	0	40	0	100
3	0023987XX	OPEN ELECTIVE - 4	OE - IV	3	0	0	3	3	60	0	0	40	0	100
4	002393701	PROJECT - I	PROJECT	0	0	8	8	4	0	120	0	0	80	200
5	002391701	PROFESSIONAL PRACTICES	HSMC - VI	0	2	0	2	2	0	0	30	70	0	100
6	002392701	SUMMER INTERNSHIP #	PROJECT	0	0	0	0	2	0	0	0	0	0	0
7	002302701	POWER PLANT ENGINEERING	PCC - IV	3	0	0	3	3	60	0	0	40	0	100
<b>Total</b>				<b>12</b>	<b>2</b>	<b>8</b>	<b>22</b>	<b>20</b>	<b>240</b>	<b>120</b>	<b>30</b>	<b>230</b>	<b>80</b>	<b>700</b>

# SUMMER INTERSHIP TO BE COMPLETED DURING SUMMER VACATION AFTER SECOND YEAR BUT BEFORE STARTING OF 7 SEMESTER.

SEMESTER / YEAR		BE - 4 SEM - 8												
Sr. No.	Subject Code	Subject Name	Sub. Category	Teaching Scheme					Examination Scheme					Total Marks
				(Hrs/Week)					External Marks		Internal Marks			
				L	T	P	Total	Credit	TH	PR	FA	CAT	CAP	
1	0023028XX	PROFESSIONAL ELECTIVE - 6	PE - VI	3	0	0	3	3	60	0	0	40	0	100
2	0023028XX	PROFESSIONAL ELECTIVE - 7	PE - VII	3	0	0	3	3	60	0	0	40	0	100
3	0023988XX	OPEN ELECTIVE - 5	OE - V	3	0	0	3	3	60	0	0	40	0	100
4	002393801	PROJECT - II	PROJECT	0	0	16	16	8	0	120	0	0	80	200
<b>Total</b>				<b>9</b>	<b>0</b>	<b>16</b>	<b>25</b>	<b>17</b>	<b>180</b>	<b>120</b>	<b>0</b>	<b>120</b>	<b>80</b>	<b>500</b>

### THE SUBJECT POOL (B)

Sr. No.	Subject Code	Subject Name	Sub. Category	L	T	P	Total	Credit	TH	PR	FA	CAT	CAP	Total Marks
1	002391305	MECHANICAL MEASUREMENT AND METALURGY	BSC - V	3	0	0	3	3	60	0	0	40	0	100
2	002391302	MECHANICAL MEASUREMENT AND METALURGY - LAB	BSC - LC - V	0	0	2	2	1	0	30	0	0	20	50
3	002302303	KINEMATICS OF MACHINE	PCC - V	3	0	0	3	3	60	0	0	40	0	100
4	002302304	KINEMATICS OF MACHINE - LAB	PCC - LC - V	0	0	2	2	1	0	30	0	0	20	50

5	002302305	ENGINEERING THERMODYNAMICS	PCC - XIV	4	0	0	4	4	60	0	0	40	0	100
6	002302307	STRENGTH OF MATERIAL	PCC	3	0	0	3	3	60	0	0	40	0	100
7	002302308	STRENGTH OF MATERIAL - LAB	PCC - LC	0	0	2	2	1	0	30	0	0	20	50
8	002302403	MATERIAL SCIENCE AND METROLOGY	PCC - VII	3	0	0	3	3	60	0	0	40	0	100
9	002302404	MATERIAL SCIENCE AND METROLOGY - LAB	PCC - LC - VII	0	0	2	2	1	0	30	0	0	20	50
10	002302405	FLUID MECHANICS & HYDRAULIC MACHINES	PCC - VIII	3	0	0	3	3	60	0	0	40	0	100
11	002302406	FLUID MECHANICS &HYDRAULIC MACHINES - LAB	PCC - LC - VIII	0	0	2	2	1	0	30	0	0	20	50
12	002302407	FUNDAMENTALS OF MACHINE DESIGN	PCC - VI	3	0	0	3	3	60	0	0	40	0	100
13	002302408	FUNDAMENTALS OF MACHINE DESIGN - LAB	PCC - LC - VI	0	0	2	2	1	0	30	0	0	20	50
14	002302409	INSTRUMENTATION & CONTROL	PCC - XV	3	1	0	4	4	60	0	0	40	0	100
15	002391407	OPERATION RESEARCH	HSMC VII	3	1	0	4	4	60	0	0	40	0	100
<b>Total</b>				<b>15</b>	<b>2</b>	<b>6</b>	<b>23</b>	<b>20</b>	<b>300</b>	<b>90</b>	<b>0</b>	<b>200</b>	<b>60</b>	<b>650</b>
<b>PROFESSIONAL ELECTIVE - 1</b>														
16	002302571	THEORY OF MACHINE	PCC - IX	3	0	0	3	3	60	0	0	40	0	100
17	002302572	THEORY OF MACHINE - LAB	PCC - LC - IX	0	0	2	2	1	0	30	0	0	20	50
18	002302573	HEAT TRANSFER	PCC - X	3	0	0	3	3	60	0	0	40	0	100
19	002302574	HEAT TRANSFER - LAB	PCC - LC - X	0	0	2	2	1	0	30	0	0	20	50
20	002302575	PRODUCTION TECHNOLOGY	PCC-XII	3	0	0	3	3	60	0	0	40	0	100
21	002302576	PRODUCTION TECHNOLOGY - LAB	PCC-XII-LC	0	0	2	2	1	0	30	0	0	20	50
<b>PROFESSIONAL ELECTIVE - 2</b>														
1	002302671	COMPUTER AIDED DESIGN	PE - 2	3	0	0	3	3	60	0	0	40	0	100
2	002302672	COMPUTER AIDED DESIGN - LAB	PE - LC - 2	0	0	2	2	1	0	30	0	0	20	50
3	002302673	AUTOMOBILE ENGINEERING	PE - 2	3	0	0	3	3	60	0	0	40	0	100
4	002302674	AUTOMOBILE ENGINEERING - LAB	PE - LC - 2	0	0	2	2	1	0	30	0	0	20	50
5	002302675	COMPUTER AIDED MANUFACTURING	PE - 2	3	0	0	3	3	60	0	0	40	0	100
6	002302676	COMPUTER AIDED MANUFACTURING - LAB	PE - LC - 2	0	0	2	2	1	0	30	0	0	20	50
<b>PROFESSIONAL ELECTIVE - 3</b>														
1	002302677	REFRIGERATION AND AIR CONDITIONING	PE - 3	3	0	0	3	3	60	0	0	40	0	100
2	002302678	REFRIGERATION AND AIR CONDITIONING - LAB	PE - LC - 3	0	0	2	2	1	0	30	0	0	20	50
3	002302679	INTERNAL COMBUSTION ENGINE	PE - 3	3	0	0	3	3	60	0	0	40	0	100

4	002302680	INTERNAL COMBUSTION ENGINE - LAB	PE - LC - 3	0	0	2	2	1	0	30	0	0	20	100
5	002302681	APPLIED THERMODYNAMICS	PE - 3	3	0	0	3	3	60	0	0	40	0	100
6	002302682	APPLIED THERMODYNAMICS - LAB	PE - LC - 3	0	0	2	2	1	0	30	0	0	20	100
<b>PROFESSIONAL ELECTIVE - 4</b>														
1	002302771	ENERGY CONSERVATION AND MANAGEMENT	PE - 4	3	0	0	3	3	60	0	0	40	0	100
2	002302773	RENEWABLE ENERGY ENGINEERING	PE - 4	3	0	0	3	3	60	0	0	40	0	100
3	002302775	NON DESTRUCTIVE TESTING	PE - 4	3	0	0	3	3	60	0	0	40	0	100
<b>PROFESSIONAL ELECTIVE - 5</b>														
1	002302777	PRODUCT DEVELOPMENT AND ENTREPRENEURSHIP	PE - 5	3	0	0	3	3	60	0	0	40	0	100
2	002302779	QUALITY AND RELIABILITY ENGINEERING	PE - 5	3	0	0	3	3	60	0	0	40	0	100
3	002302781	DESIGN OF MATERIAL HANDLING EQUIPMENT	PE - 5	3	0	0	3	3	60	0	0	40	0	100
<b>PROFESSIONAL ELECTIVE - 6</b>														
1	002302871	FINITE ELEMENT METHOD	PE - 6	3	0	0	3	3	60	0	0	40	0	100
2	002302873	MACHINE TOOL DESIGN	PE - 6	3	0	0	3	3	60	0	0	40	0	100
3	002302875	PRINCIPLES OF COMBUSTION	PE - 6	3	0	0	3	3	60	0	0	40	0	100
<b>PROFESSIONAL ELECTIVE - 7</b>														
1	002302877	INDUSTRIAL SAFETY AND MAINTENANCE ENGINEERING	PE - 7	3	0	0	3	3	60	0	0	40	0	100
2	002302879	INDUSTRIAL INTERNET OF THINGS	PE - 7	3	0	0	3	3	60	0	0	40	0	100
3	002302881	NANOTECHNOLOGY AND SURFACE ENGINEERING	PE - 7	3	0	0	3	3	60	0	0	40	0	100
<b>OPEN ELECTIVE - 1 (INTER DEPARTMENT)</b>														
1	002398501	DISASTER MANAGEMENT (CE)	OE - 1	3	0	0	3	3	60	0	0	40	0	100
2	002398503	ROAD SAFETY & MANAGEMENT (CE)	OE - 1	3	0	0	3	3	60	0	0	40	0	100
3	002398505	PYTHON PROGRAMING (CO)	OE - 1	3	0	0	3	3	60	0	0	40	0	100
4	002398509	NON- CONVENTIONAL SOURCES (EE)	OE - 1	3	0	0	3	3	60	0	0	40	0	100
<b>OPEN ELECTIVE - 2</b>														
1	002398601	ENTREPRENEURSHIP & INNOVATION MANAGEMENT	OE - 2	3	0	0	3	3	60	0	0	40	0	100
2	002398603	INNOVATION AND STARTUP	OE - 2	3	0	0	3	3	60	0	0	40	0	100
3	002398605	FUNDAMENTAL OF MANAGEMENT	OE - 2	3	0	0	3	3	60	0	0	40	0	100
4	002398611	BIOLOGY FOR ENGINEERING	OE - 2	3	0	0	3	3	60	0	0	40	0	100
5	002398607	CORPORATE SOCIAL RESPONSIBILITY	OE - 2	3	0	0	3	3	60	0	0	40	0	100
<b>OPEN ELECTIVE - 3</b>														
1	002398615	NON DESTRUCTIVE TESTING	OE - 3	3	0	0	3	3	60	0	0	40	0	100



2	002398617	ENERGY AUDIT	OE - 3	3	0	0	3	3	60	0	0	40	0	100
4	002398619	REVERSE ENGINEERING	OE - 3	3	0	0	3	3	60	0	0	40	0	100
<b>OPEN ELECTIVE - 4</b>														
1	002398709	TOTAL QUALITY MANAGEMENT (TQM)	OE - 4	3	0	0	3	3	60	0	0	40	0	100
2	002398711	INTRODUCTION TO COMPOSITE MATERIALS	OE - 4	3	0	0	3	3	60	0	0	40	0	100
3	002398713	ENTREPRENEURSHIP & E-COMMERCE SOLUTIONS	OE - 4	3	0	0	3	3	60	0	0	40	0	100
<b>OPEN ELECTIVE - 5</b>														
1	002398807	FUNDAMENTAL OF MANAGEMENT	OE - 5	3	0	0	3	3	60	0	0	40	0	100
2	002398809	AI AND MACHINE LEARNING	OE - 5	3	0	0	3	3	60	0	0	40	0	100
3	002398811	INNRODCUTION TO ROBOTICS (ME)	OE - 5	3	0	0	3	3	60	0	0	40	0	100