

Energy & Environment

Course Outcomes (Cos):	
Upon successful completion of this course the student will be able to:	
CO1	Obtain the knowledge of solid and gaseous fuels and their Calorific Value determination.
CO2	Recognize the type of liquid fuels and their uses in IC engines.
CO3	Apply the knowledge about the use of alternative sources of energy & utilize solid waste as energy source
CO4	Analyze the impacts of Industrial pollution and its control
CO5	Develop innovative ideas for use of advanced materials in sustainable development.

PROGRAM OUTCOMES Direct Assessment

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	x	x			X	X	X							
CO2	x	x			X	X	X				X			
CO3	x	x					X				X			
CO4	x	x			x					x				
CO5	x	x	x				X				X			

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	3			3	2	2							
CO2	3	3			2	2	2				2			
CO3	3	3					3			3	2			
CO4	3	3			2									
CO5	3	3	3				1				1			

Academic Session 2023-24(Odd Semester)

Energy & Environment

Sec.	Roll No	Name of the Student	IE		CO attainment : University Examination					CO attainment : Internal Examination				
			TU	TI	CO1	CO2	CO3	CO4	CO5	CO1	CO2	CO3	CO4	CO5
A	1	AARYA ASHOK NIMBHORKAR	13	29	2.60	2.60	2.60	2.60	2.60	5.8	5.8	5.8	5.8	5.8
A	2	AKANKSHA SANJAY SARPUTE	17	29	3.40	3.40	3.40	3.40	3.40	5.8	5.8	5.8	5.8	5.8
A	3	ASHWINI VIJAY MHAISKAR	4	28	0.80	0.80	0.80	0.80	0.80	5.6	5.6	5.6	5.6	5.6
A	4	BHUMIKA PREMRAJ PANDIT	2	28	0.40	0.40	0.40	0.40	0.40	5.6	5.6	5.6	5.6	5.6
A	5	DEVYANI ARVIND BHOYAR	12	29	2.40	2.40	2.40	2.40	2.40	5.8	5.8	5.8	5.8	5.8
A	6	DURGA SHIVRAM JADHAO	4	28	0.80	0.80	0.80	0.80	0.80	5.6	5.6	5.6	5.6	5.6
A	7	GAURI GUNVANT RAUT	21	29	4.20	4.20	4.20	4.20	4.20	5.8	5.8	5.8	5.8	5.8
A	8	JANHAVI RAVINDRA MESHARAM	0	28	0.00	0.00	0.00	0.00	0.00	5.6	5.6	5.6	5.6	5.6
A	9	KHUSHI ANIL DESHMUKH	11	28	2.20	2.20	2.20	2.20	2.20	5.6	5.6	5.6	5.6	5.6
A	10	KIRTI RAJESH ITANKAR	4	28	0.80	0.80	0.80	0.80	0.80	5.6	5.6	5.6	5.6	5.6
A	11	KOMAL PRAKASH RASOKAR	1	28	0.20	0.20	0.20	0.20	0.20	5.6	5.6	5.6	5.6	5.6
A	12	KRUTIKA DATTA RATHOD	3	28	0.60	0.60	0.60	0.60	0.60	5.6	5.6	5.6	5.6	5.6
A	13	MANASVI RAMBHAU ULLEWAR	24	28	4.80	4.80	4.80	4.80	4.80	5.6	5.6	5.6	5.6	5.6
A	14	MOHINI ANIL BHARADE	24	28	4.80	4.80	4.80	4.80	4.80	5.6	5.6	5.6	5.6	5.6
A	15	NIKHITA RAMKRUSHNA LADHI	19	28	3.80	3.80	3.80	3.80	3.80	5.6	5.6	5.6	5.6	5.6
A	16	PALLAVI SANJAY RATHOD	12	28	2.40	2.40	2.40	2.40	2.40	5.6	5.6	5.6	5.6	5.6
A	17	PAYAL GAJANAN HATTIMARE	6	28	1.20	1.20	1.20	1.20	1.20	5.6	5.6	5.6	5.6	5.6
A	18	PRANJALI GAJANAN JADHAO	6	28	1.20	1.20	1.20	1.20	1.20	5.6	5.6	5.6	5.6	5.6

A	19	PRATIKSHA JIVANRAO DESHMUKH	4	28	0.80	0.80	0.80	0.80	0.80	5.6	5.6	5.6	5.6	5.6	
A	20	PRATIKSHA SUBHASHRAO URADE	13	29	2.60	2.60	2.60	2.60	2.60	5.8	5.8	5.8	5.8	5.8	
A	21	PRERNA MAROTTI THOBHARE	25	28	5.00	5.00	5.00	5.00	5.00	5.6	5.6	5.6	5.6	5.6	
A	22	RASIKA RAVINDRARAO KEVATE	2	28	0.40	0.40	0.40	0.40	0.40	5.6	5.6	5.6	5.6	5.6	
A	23	ROHINI VINOD BHAGWAT	25	28	5.00	5.00	5.00	5.00	5.00	5.6	5.6	5.6	5.6	5.6	
A	24	ROSHANI UJWAL WASNIK	22	29	4.40	4.40	4.40	4.40	4.40	5.8	5.8	5.8	5.8	5.8	
A	25	RUTUJA SANJAY GAIKWAD	7	28	1.40	1.40	1.40	1.40	1.40	5.6	5.6	5.6	5.6	5.6	
A	26	SAKSHI SURESH DHAGE	0	28	0.00	0.00	0.00	0.00	0.00	5.6	5.6	5.6	5.6	5.6	
A	27	SAKSHI VIJAY KHADE	15	28	3.00	3.00	3.00	3.00	3.00	5.6	5.6	5.6	5.6	5.6	
A	28	SAKSHI VINOD LONARE	4	28	0.80	0.80	0.80	0.80	0.80	5.6	5.6	5.6	5.6	5.6	
A	29	SAMIKSHA DHANRAJ BHADE	4	28	0.80	0.80	0.80	0.80	0.80	5.6	5.6	5.6	5.6	5.6	
A	30	SANDHYA PANDURANG KOWE	0	28	0.00	0.00	0.00	0.00	0.00	5.6	5.6	5.6	5.6	5.6	
A	31	SANIKA SANJAY DHARMIK	10	28	2.00	2.00	2.00	2.00	2.00	5.6	5.6	5.6	5.6	5.6	
A	32	SHIVANI GAJANAN DHOTE	9	29	1.80	1.80	1.80	1.80	1.80	5.8	5.8	5.8	5.8	5.8	
A	33	SHIVANI SHALIK RASE	0	27	0.00	0.00	0.00	0.00	0.00	5.4	5.4	5.4	5.4	5.4	
A	34	SHIVANI VISHNU WAGHMARE	0	27	0.00	0.00	0.00	0.00	0.00	5.4	5.4	5.4	5.4	5.4	
A	35	SHRAVANI GOPALRAO CHAUDHARI	11	28	2.20	2.20	2.20	2.20	2.20	5.6	5.6	5.6	5.6	5.6	
A	36	SHREYA MOHANRAO KHAWSHI	9	28	1.80	1.80	1.80	1.80	1.80	5.6	5.6	5.6	5.6	5.6	
A	37	SHWETA JIVANRAO CHIDE	9	28	1.80	1.80	1.80	1.80	1.80	5.6	5.6	5.6	5.6	5.6	
A	38	SNEHA CHANDRASHEKHAR NIMKARDE	10	28	2.00	2.00	2.00	2.00	2.00	5.6	5.6	5.6	5.6	5.6	
A	39	SONAL SHANKARRAO SHEGOKAR	10	28	2.00	2.00	2.00	2.00	2.00	5.6	5.6	5.6	5.6	5.6	
A	40	SUHANI PUNYASHWAR BARDE	0	27	0.00	0.00	0.00	0.00	0.00	5.4	5.4	5.4	5.4	5.4	
A	41	SWAJAL NITIN MAHALLE	1	28	0.20	0.20	0.20	0.20	0.20	5.6	5.6	5.6	5.6	5.6	
A	42	TEJASWINI ANIL RATHOD	16	28	3.20	3.20	3.20	3.20	3.20	5.6	5.6	5.6	5.6	5.6	
A	43	VAIBHAVI NARESH KHUNE	18	29	3.60	3.60	3.60	3.60	3.60	5.8	5.8	5.8	5.8	5.8	
A	44	VAISHNAVI BABARAO CHAVHAN	4	28	0.80	0.80	0.80	0.80	0.80	5.6	5.6	5.6	5.6	5.6	
A	45	VAISHNAVI BARSHIRAM MOHJE	0	28	0.00	0.00	0.00	0.00	0.00	5.6	5.6	5.6	5.6	5.6	
A	46	VAISHNAVI SUNIL VAIDYA	1	27	0.20	0.20	0.20	0.20	0.20	5.4	5.4	5.4	5.4	5.4	
A	47	VEDIKA SANJAY BHASME	4	28	0.80	0.80	0.80	0.80	0.80	5.6	5.6	5.6	5.6	5.6	
A	48	VEDIKA VILAS CHAUDHARI	5	28	1.00	1.00	1.00	1.00	1.00	5.6	5.6	5.6	5.6	5.6	
A	49	VIDHI SACHIN LOHIYA	11	28	2.20	2.20	2.20	2.20	2.20	5.6	5.6	5.6	5.6	5.6	
A	50	YASHASHRI JIWAN MAHALLE	9	28	1.80	1.80	1.80	1.80	1.80	5.6	5.6	5.6	5.6	5.6	
A	51	ABHAY GANESH MISHRA	6	28	1.20	1.20	1.20	1.20	1.20	5.6	5.6	5.6	5.6	5.6	
A	52	ABHIJEET GAJANAN KHAWASE	11	28	2.20	2.20	2.20	2.20	2.20	5.6	5.6	5.6	5.6	5.6	
A	53	ABHISHEK SANJAY PATRE	3	28	0.60	0.60	0.60	0.60	0.60	5.6	5.6	5.6	5.6	5.6	
A	54	ADESH CHANDRAVILAS SONUNE	7	28	1.40	1.40	1.40	1.40	1.40	5.6	5.6	5.6	5.6	5.6	
A	55	ADITYA MULCHAND RAUT	5	28	1.00	1.00	1.00	1.00	1.00	5.6	5.6	5.6	5.6	5.6	
A	56	AMIT AMOL KHADE	0	28	0.00	0.00	0.00	0.00	0.00	5.6	5.6	5.6	5.6	5.6	
A	57	ANIKET AMOL PAL	0	28	0.00	0.00	0.00	0.00	0.00	5.6	5.6	5.6	5.6	5.6	
A	58	ANSHUL MANOHARRAO ZADE	5	29	1.00	1.00	1.00	1.00	1.00	5.8	5.8	5.8	5.8	5.8	
A	59	ARHANT ANIL ONKAR	21	29	4.20	4.20	4.20	4.20	4.20	5.8	5.8	5.8	5.8	5.8	
A	60	ARPIT JAYPAL NADAGAWALI	24	28	4.80	4.80	4.80	4.80	4.80	5.6	5.6	5.6	5.6	5.6	
A	61	ARPIT PRASHANT SONATAKKE	4	27	0.80	0.80	0.80	0.80	0.80	5.4	5.4	5.4	5.4	5.4	
A	62	ARYAN DILIP DHOLE	12	28	2.40	2.40	2.40	2.40	2.40	5.6	5.6	5.6	5.6	5.6	
A	63	ARYAN VIJAY KALE	10	28	2.00	2.00	2.00	2.00	2.00	5.6	5.6	5.6	5.6	5.6	
A	64	ATHARV RAJESH WARKARI	4	28	0.80	0.80	0.80	0.80	0.80	5.6	5.6	5.6	5.6	5.6	

A	65	AYUSH RAHUL PATIL	9	28	1.80	1.80	1.80	1.80	1.80	5.6	5.6	5.6	5.6	5.6	
A	66	AYUSH RAJESH RANGARI	26	29	5.20	5.20	5.20	5.20	5.20	5.8	5.8	5.8	5.8	5.8	
A	67	BHAWESH ARUN BAWANE	0	28	0.00	0.00	0.00	0.00	0.00	5.6	5.6	5.6	5.6	5.6	
A	68	BHIKU NURSING RATHOD	0	28	0.00	0.00	0.00	0.00	0.00	5.6	5.6	5.6	5.6	5.6	
A	69	BODHISATVA ANIL BAHADE	0	27	0.00	0.00	0.00	0.00	0.00	5.4	5.4	5.4	5.4	5.4	
A	70	HARSHAL SATISH WANDILE	0	28	0.00	0.00	0.00	0.00	0.00	5.6	5.6	5.6	5.6	5.6	
A	71	HIMANSHU NAMDEORAO MENDHULE	1	28	0.20	0.20	0.20	0.20	0.20	5.6	5.6	5.6	5.6	5.6	
A	72	HIMESH KAWADUJI BAHURE	7	28	1.40	1.40	1.40	1.40	1.40	5.6	5.6	5.6	5.6	5.6	
A	73	HITESH YASHWANT GOUPALE	16	28	3.20	3.20	3.20	3.20	3.20	5.6	5.6	5.6	5.6	5.6	
A	74	JIVAN MAHADEORAO WAGHMARE	8	28	1.60	1.60	1.60	1.60	1.60	5.6	5.6	5.6	5.6	5.6	
A	75	KARTIK ASHISH THAKRE	6	28	1.20	1.20	1.20	1.20	1.20	5.6	5.6	5.6	5.6	5.6	
A	76	KARTIK PRAVIN KHOBE	3	28	0.60	0.60	0.60	0.60	0.60	5.6	5.6	5.6	5.6	5.6	
A	77	KUNAL DNYANESHWAR LENDE	0	27	0.00	0.00	0.00	0.00	0.00	5.4	5.4	5.4	5.4	5.4	
A	78	KUNAL RAJESH KELATKAR	4	26	0.80	0.80	0.80	0.80	0.80	5.2	5.2	5.2	5.2	5.2	
A	79	KUNAL SUNILRAO BAHADURE	1	28	0.20	0.20	0.20	0.20	0.20	5.6	5.6	5.6	5.6	5.6	
A	80	LOKESH GAUTAM TAYDE	7	28	1.40	1.40	1.40	1.40	1.40	5.6	5.6	5.6	5.6	5.6	
A	81	MAHESH RAMDAS THAKARE	37	29	7.40	7.40	7.40	7.40	7.40	5.8	5.8	5.8	5.8	5.8	
A	82	MANAV SUBHASHRAO INGOLE	0	26	0.00	0.00	0.00	0.00	0.00	5.2	5.2	5.2	5.2	5.2	
A	83	MANTHAN GAJANAN RUMALE	2	28	0.40	0.40	0.40	0.40	0.40	5.6	5.6	5.6	5.6	5.6	
A	84	MAYUR GANESH RATHOD	5	28	1.00	1.00	1.00	1.00	1.00	5.6	5.6	5.6	5.6	5.6	
A	85	NAYAN AJAYRAO BELGE	20	28	4.00	4.00	4.00	4.00	4.00	5.6	5.6	5.6	5.6	5.6	
A	86	NAYAN MAHADEO LOKHANDE	15	28	3.00	3.00	3.00	3.00	3.00	5.6	5.6	5.6	5.6	5.6	
A	87	NIKHIL DATTARAJ KARWADE	4	28	0.80	0.80	0.80	0.80	0.80	5.6	5.6	5.6	5.6	5.6	
A	88	NIKHIL MILIND GAIKWAD	3	28	0.60	0.60	0.60	0.60	0.60	5.6	5.6	5.6	5.6	5.6	
A	89	NIKHIL PUNDALIK PURKAM	0	27	0.00	0.00	0.00	0.00	0.00	5.4	5.4	5.4	5.4	5.4	
A	90	NISHIKANT DHANPAL GOTE	16	29	3.20	3.20	3.20	3.20	3.20	5.8	5.8	5.8	5.8	5.8	
A	91	OMKAR RAMESHWAR GORE	14	28	2.80	2.80	2.80	2.80	2.80	5.6	5.6	5.6	5.6	5.6	
A	92	PALASH PANKAJ BHAGAT	12	28	2.40	2.40	2.40	2.40	2.40	5.6	5.6	5.6	5.6	5.6	
A	93	PAVAN HANSRAJ PAWAR	4	27	0.80	0.80	0.80	0.80	0.80	5.4	5.4	5.4	5.4	5.4	
A	94	PAJWAL GAJANAN LONKAR	6	28	1.20	1.20	1.20	1.20	1.20	5.6	5.6	5.6	5.6	5.6	
A	95	PAJWAL VISHNUKANT HULKE	7	28	1.40	1.40	1.40	1.40	1.40	5.6	5.6	5.6	5.6	5.6	
A	96	PAJYOT KISAN GUDE	1	28	0.20	0.20	0.20	0.20	0.20	5.6	5.6	5.6	5.6	5.6	
A	97	PRANAY DIPAK PADGHAMOD	0	27	0.00	0.00	0.00	0.00	0.00	5.4	5.4	5.4	5.4	5.4	
A	98	PRATHAMESH MANOHAR KUMBHARE	3	28	0.60	0.60	0.60	0.60	0.60	5.6	5.6	5.6	5.6	5.6	
A	99	PRATIK RAMBHAU KHERE	8	28	1.60	1.60	1.60	1.60	1.60	5.6	5.6	5.6	5.6	5.6	
A	100	PRATIK SUBHASH GAULKAR	15	28	3.00	3.00	3.00	3.00	3.00	5.6	5.6	5.6	5.6	5.6	
A	101	RAJA DILIP BANARJI	0	28	0.00	0.00	0.00	0.00	0.00	5.6	5.6	5.6	5.6	5.6	
A	102	RAJKUMAR SACHIN INGALE	13	28	2.60	2.60	2.60	2.60	2.60	5.6	5.6	5.6	5.6	5.6	
A	103	RAM RAJESH DESHPANDE	28	29	5.60	5.60	5.60	5.60	5.60	5.8	5.8	5.8	5.8	5.8	
A	104	ROHAN SHIVCHAND RATHOD	2	28	0.40	0.40	0.40	0.40	0.40	5.6	5.6	5.6	5.6	5.6	
A	105	ROSHAN ARUNRAO KITE	0	27	0.00	0.00	0.00	0.00	0.00	5.4	5.4	5.4	5.4	5.4	
A	106	RUDRESH VILASRAO PARDHEKAR	0	28	0.00	0.00	0.00	0.00	0.00	5.6	5.6	5.6	5.6	5.6	
A	107	RUSHIKESH SUNIL UBALE	5	28	1.00	1.00	1.00	1.00	1.00	5.6	5.6	5.6	5.6	5.6	
A	108	SAGAR VILASRAO SURKAR	0	27	0.00	0.00	0.00	0.00	0.00	5.4	5.4	5.4	5.4	5.4	
A	109	SAGAR VISHRAM GAIKWAD	12	28	2.40	2.40	2.40	2.40	2.40	5.6	5.6	5.6	5.6	5.6	
A	110	SAHIL SUNIL SONPITALE	0	26	0.00	0.00	0.00	0.00	0.00	5.2	5.2	5.2	5.2	5.2	

Total number of students not meeting therequirement (N)	79	59.85	79	59.85	79	59.85	79	59.85	79	59.85		
Total number of students	132		132		132		132		132			

Measuring CO attainment through Internal Examination

CO Attainment	CO1		CO2		CO3		CO4		CO5			
	No.	%	No.	%	No.	%	No.	%	No.	%		
Total number of students meeting the requirement (M)	113	85.60606	113	85.60606	113	85.60606	113	85.60606	113	85.60606		
Total number of students not meeting therequirement (N)	19	14.39394	19	14.39394	19	14.39394	19	14.39394	19	14.39394		
Total number of students	132		132		132		132		132			

CO Attainment	CO1	CO2	CO3	CO4	CO5
University Examination	40.15	40.15	40.15	40.15	40.15
70%	28.11	28.11	28.11	28.11	28.11
Internal Examination	85.61	85.61	85.61	85.61	85.61
30%	25.68	25.68	25.68	25.68	25.68
Attainment considering (70%+30%)	53.79	53.79	53.79	53.79	53.79
	YES	YES	YES	YES	YES

CO Attainment

CO	Target set	Actual attainment	CO Attended/not Attended	Gap in %	Action Propose to bridge the gap
CO1	50%	53.79	YES		
CO2	50%	53.79	YES		
CO3	50%	53.79	YES		
CO4	50%	53.79	YES		
CO5	50%	53.79	YES		

PROGRAM OUTCOMES Direct Assessment

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	x	x			X	X	X							
CO2	x	x			X	X	X				X			
CO3	x	x					X				X			
CO4	x	x			x					x				
CO5	x	x	x				X				X			

CONTRIBUTION OF COURSE OUTCOME TO DIRECT PROGRAM OUTCOMES

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	3			3	2	2							
CO2	3	3			2	2	2				2			
CO3	3	3					3			3	2			
CO4	3	3			2									
CO5	3	3	3				1				1			

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	53.79	53.79	0	0	53.79	35.86	35.86	0	0	0	0	0	0	0
CO2	53.79	53.79	0	0	35.86	35.86	35.86	0	0	0	35.86	0	0	0
CO3	53.79	53.79	0	0	0	0	53.79	0	0	53.79	35.86	0	0	0
CO4	53.79	53.79	0	0	35.86	0	0	0	0	0	0	0	0	0
CO5	53.79	53.79	53.79	0	0	0	17.93	0	0	0	17.93	0	0	0
Average.	53.79	53.79	53.79	0.00	41.83667	23.90667	47.81333	0	0	53.79	29.88333	0	0	0

Applied Physics

Course Outcomes (Cos):

Upon successful completion of this course the student will be able to:

CO1	Apply concepts in interference and diffraction to solve relevant numerical problems and to
CO2	Learn the basic concepts of dual nature of matter and wave packet and apply them to
CO3	Recall the basic concepts of crystal structure and apply them in solving numerical
CO4	Relate the basic idea of total internal reflection to the propagation of light in an optical fiber
CO5	Find how to extend the basic concepts of motion of charged particles in electric magnetic

PROGRAM OUTCOMES Direct Assessment

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	x	x												
CO2	x	x												
CO3	x	x												
CO4	x	x			x					x				
CO5	x	x	x											

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	3												
CO2	3	3								3				
CO3	3	3			3									
CO4	3	3												
CO5	3	3	3											

Academic Session 2023-24(Odd Semester)

Applied Physics

Sec.	Roll No	Name of the Student	IE		CO attainment : University Examination					CO attainment : Internal Examination				
			TU	TI	CO1	CO2	CO3	CO4	CO5	CO1	CO2	CO3	CO4	CO5
A	1	AARYA ASHOK NIMBHORKAR	7	28	1.40	1.40	1.40	1.40	1.40	5.6	5.6	5.6	5.6	5.6
A	2	AKANKSHA SANJAY SARPUTE	11	29	2.20	2.20	2.20	2.20	2.20	5.8	5.8	5.8	5.8	5.8
A	3	ASHWINI VIJAY MHAISKAR	4	29	0.80	0.80	0.80	0.80	0.80	5.8	5.8	5.8	5.8	5.8
A	4	BHUMIKA PREMRAJ PANDIT	2	28	0.40	0.40	0.40	0.40	0.40	5.6	5.6	5.6	5.6	5.6
A	5	DEVYANI ARVIND BHOYAR	11	28	2.20	2.20	2.20	2.20	2.20	5.6	5.6	5.6	5.6	5.6
A	6	DURGA SHIVRAM JADHAO	5	29	1.00	1.00	1.00	1.00	1.00	5.8	5.8	5.8	5.8	5.8
A	7	GAURI GUNVANT RAUT	19	29	3.80	3.80	3.80	3.80	3.80	5.8	5.8	5.8	5.8	5.8
A	8	JANHAVI RAVINDRA MESHARAM	1	28	0.20	0.20	0.20	0.20	0.20	5.6	5.6	5.6	5.6	5.6
A	9	KHUSHI ANIL DESHMUKH	8	28	1.60	1.60	1.60	1.60	1.60	5.6	5.6	5.6	5.6	5.6
A	10	KIRTI RAJESH ITANKAR	9	28	1.80	1.80	1.80	1.80	1.80	5.6	5.6	5.6	5.6	5.6
A	11	KOMAL PRAKASH RASOKAR	2	27	0.40	0.40	0.40	0.40	0.40	5.4	5.4	5.4	5.4	5.4
A	12	KRUTIKA DATTA RATHOD	7	28	1.40	1.40	1.40	1.40	1.40	5.6	5.6	5.6	5.6	5.6
A	13	MANASVI RAMBHAA ULLEWAR	15	29	3.00	3.00	3.00	3.00	3.00	5.8	5.8	5.8	5.8	5.8
A	14	MOHINI ANIL BHARADE	23	29	4.60	4.60	4.60	4.60	4.60	5.8	5.8	5.8	5.8	5.8
A	15	NIKHITA RAMKRUSHNA LADHI	9	28	1.80	1.80	1.80	1.80	1.80	5.6	5.6	5.6	5.6	5.6
A	16	PALLAVI SANJAY RATHOD	7	28	1.40	1.40	1.40	1.40	1.40	5.6	5.6	5.6	5.6	5.6
A	17	PAYAL GAJANAN HATTIMARE	6	28	1.20	1.20	1.20	1.20	1.20	5.6	5.6	5.6	5.6	5.6
A	18	PRANJALI GAJANAN JADHAO	8	28	1.60	1.60	1.60	1.60	1.60	5.6	5.6	5.6	5.6	5.6
A	19	PRATIKSHA JIVANRAO DESHMUKH	7	28	1.40	1.40	1.40	1.40	1.40	5.6	5.6	5.6	5.6	5.6
A	20	PRATIKSHA SUBHASHRAO URADE	20	29	4.00	4.00	4.00	4.00	4.00	5.8	5.8	5.8	5.8	5.8
A	21	PRERNA MAROTTI THOBHARE	19	29	3.80	3.80	3.80	3.80	3.80	5.8	5.8	5.8	5.8	5.8
A	22	RASIKA RAVINDRARAO KEVATE	1	27	0.20	0.20	0.20	0.20	0.20	5.4	5.4	5.4	5.4	5.4
A	23	ROHINI VINOD BHAGWAT	19	29	3.80	3.80	3.80	3.80	3.80	5.8	5.8	5.8	5.8	5.8
A	24	ROSHANI UJWAL WASNIK	20	29	4.00	4.00	4.00	4.00	4.00	5.8	5.8	5.8	5.8	5.8
A	25	RUTUJA SANJAY GAIKWAD	9	28	1.80	1.80	1.80	1.80	1.80	5.6	5.6	5.6	5.6	5.6
A	26	SAKSHI SURESH DHAGE	0	28	0.00	0.00	0.00	0.00	0.00	5.6	5.6	5.6	5.6	5.6
A	27	SAKSHI VIJAY KHADE	12	29	2.40	2.40	2.40	2.40	2.40	5.8	5.8	5.8	5.8	5.8
A	28	SAKSHI VINOD LONARE	4	29	0.80	0.80	0.80	0.80	0.80	5.8	5.8	5.8	5.8	5.8
A	29	SAMIKSHA DHANRAJ BHADE	6	29	1.20	1.20	1.20	1.20	1.20	5.8	5.8	5.8	5.8	5.8
A	30	SANDHYA PANDURANG KOWE	0	27	0.00	0.00	0.00	0.00	0.00	5.4	5.4	5.4	5.4	5.4
A	31	SANIKA SANJAY DHARMIK	4	28	0.80	0.80	0.80	0.80	0.80	5.6	5.6	5.6	5.6	5.6
A	32	SHIVANI GAJANAN DHOTE	10	29	2.00	2.00	2.00	2.00	2.00	5.8	5.8	5.8	5.8	5.8
A	33	SHIVANI SHALIK RASE	0	27	0.00	0.00	0.00	0.00	0.00	5.4	5.4	5.4	5.4	5.4
A	34	SHIVANI VISHNU WAGHMARE	0	27	0.00	0.00	0.00	0.00	0.00	5.4	5.4	5.4	5.4	5.4
A	35	SHRAVANI GOPALRAO CHAUDHARI	2	28	0.40	0.40	0.40	0.40	0.40	5.6	5.6	5.6	5.6	5.6
A	36	SHREYA MOHANRAO KHAWSHI	18	29	3.60	3.60	3.60	3.60	3.60	5.8	5.8	5.8	5.8	5.8
A	37	SHWETA JIVANRAO CHIDE	10	28	2.00	2.00	2.00	2.00	2.00	5.6	5.6	5.6	5.6	5.6
A	38	SNEHA CHANDRASHEKHAR NIMKARDE	10	28	2.00	2.00	2.00	2.00	2.00	5.6	5.6	5.6	5.6	5.6
A	39	SONAL SHANKARRAO SHEGOKAR	13	29	2.60	2.60	2.60	2.60	2.60	5.8	5.8	5.8	5.8	5.8
A	40	SUHANI PUNYASHWAR BARDE	0	28	0.00	0.00	0.00	0.00	0.00	5.6	5.6	5.6	5.6	5.6
A	41	SWAJAL NITIN MAHALLE	7	29	1.40	1.40	1.40	1.40	1.40	5.8	5.8	5.8	5.8	5.8
A	42	TEJASWINI ANIL RATHOD	19	29	3.80	3.80	3.80	3.80	3.80	5.8	5.8	5.8	5.8	5.8
A	43	VAIBHAVI NARESH KHUNE	20	29	4.00	4.00	4.00	4.00	4.00	5.8	5.8	5.8	5.8	5.8
A	44	VAISHNAVI BABARAO CHAVHAN	8	29	1.60	1.60	1.60	1.60	1.60	5.8	5.8	5.8	5.8	5.8
A	45	VAISHNAVI BARSHIRAM MOHJE	1	29	0.20	0.20	0.20	0.20	0.20	5.8	5.8	5.8	5.8	5.8
A	46	VAISHNAVI SUNIL VAIDYA	5	27	1.00	1.00	1.00	1.00	1.00	5.4	5.4	5.4	5.4	5.4
A	47	VEDIKA SANJAY BHASME	5	28	1.00	1.00	1.00	1.00	1.00	5.6	5.6	5.6	5.6	5.6
A	48	VEDIKA VILAS CHAUDHARI	19	29	3.80	3.80	3.80	3.80	3.80	5.8	5.8	5.8	5.8	5.8
A	49	VIDHI SACHIN LOHIYA	17	28	3.40	3.40	3.40	3.40	3.40	5.6	5.6	5.6	5.6	5.6
A	50	YASHASHRI JIWAN MAHALLE	27	29	5.40	5.40	5.40	5.40	5.40	5.8	5.8	5.8	5.8	5.8
A	51	ABHAY GANESH MISHRA	5	28	1.00	1.00	1.00	1.00	1.00	5.6	5.6	5.6	5.6	5.6
A	52	ABHJEET GAJANAN KHAWASE	9	27	1.80	1.80	1.80	1.80	1.80	5.4	5.4	5.4	5.4	5.4

A	53	ABHISHEK SANJAY PATRE	9	29	1.80	1.80	1.80	1.80	1.80	5.8	5.8	5.8	5.8	5.8
A	54	ADESH CHANDRAVILAS SONUNE	7	28	1.40	1.40	1.40	1.40	1.40	5.6	5.6	5.6	5.6	5.6
A	55	ADITYA MULCHAND RAUT	6	28	1.20	1.20	1.20	1.20	1.20	5.6	5.6	5.6	5.6	5.6
A	56	AMIT AMOL KHADE	3	28	0.60	0.60	0.60	0.60	0.60	5.6	5.6	5.6	5.6	5.6
A	57	ANIKET AMOL PAL	1	27	0.20	0.20	0.20	0.20	0.20	5.4	5.4	5.4	5.4	5.4
A	58	ANSHUL MANOHARRAO ZADE	19	29	3.80	3.80	3.80	3.80	3.80	5.8	5.8	5.8	5.8	5.8
A	59	ARHANT ANIL ONKAR	25	28	5.00	5.00	5.00	5.00	5.00	5.6	5.6	5.6	5.6	5.6
A	60	ARPIT JAYPAL NADAGAWALI	24	29	4.80	4.80	4.80	4.80	4.80	5.8	5.8	5.8	5.8	5.8
A	61	ARPIT PRASHANT SONATAKKE	4	27	0.80	0.80	0.80	0.80	0.80	5.4	5.4	5.4	5.4	5.4
A	62	ARYAN DILIP DHOLE	16	27	3.20	3.20	3.20	3.20	3.20	5.4	5.4	5.4	5.4	5.4
A	63	ARYAN VIJAY KALE	9	28	1.80	1.80	1.80	1.80	1.80	5.6	5.6	5.6	5.6	5.6
A	64	ATHARV RAJESH WARKARI	3	28	0.60	0.60	0.60	0.60	0.60	5.6	5.6	5.6	5.6	5.6
A	65	AYUSH RAHUL PATIL	0	27	0.00	0.00	0.00	0.00	0.00	5.4	5.4	5.4	5.4	5.4
A	66	AYUSH RAJESH RANGARI	26	29	5.20	5.20	5.20	5.20	5.20	5.8	5.8	5.8	5.8	5.8
A	67	BHAWESH ARUN BAWANE	4	27	0.80	0.80	0.80	0.80	0.80	5.4	5.4	5.4	5.4	5.4
A	68	BHIKU NURSING RATHOD	0	27	0.00	0.00	0.00	0.00	0.00	5.4	5.4	5.4	5.4	5.4
A	69	BODHISATVA ANIL BAHADE	0	27	0.00	0.00	0.00	0.00	0.00	5.4	5.4	5.4	5.4	5.4
A	70	HARSHAL SATISH WANDILE	0	27	0.00	0.00	0.00	0.00	0.00	5.4	5.4	5.4	5.4	5.4
A	71	HIMANSHU NAMDEORAO MENDHULE	0	27	0.00	0.00	0.00	0.00	0.00	5.4	5.4	5.4	5.4	5.4
A	72	HIMESH KAWADUJI BAHURE	3	27	0.60	0.60	0.60	0.60	0.60	5.4	5.4	5.4	5.4	5.4
A	73	HITESH YASHWANT GOUKALE	25	29	5.00	5.00	5.00	5.00	5.00	5.8	5.8	5.8	5.8	5.8
A	74	JIVAN MAHADEORAO WAGHMARE	1	28	0.20	0.20	0.20	0.20	0.20	5.6	5.6	5.6	5.6	5.6
A	75	KARTIK ASHISH THAKRE	0	27	0.00	0.00	0.00	0.00	0.00	5.4	5.4	5.4	5.4	5.4
A	76	KARTIK PRAVIN KHOBRE	0	27	0.00	0.00	0.00	0.00	0.00	5.4	5.4	5.4	5.4	5.4
A	77	KUNAL DNYANESHWAR LENDE	0	27	0.00	0.00	0.00	0.00	0.00	5.4	5.4	5.4	5.4	5.4
A	78	KUNAL RAJESH KELATKAR	0	27	0.00	0.00	0.00	0.00	0.00	5.4	5.4	5.4	5.4	5.4
A	79	KUNAL SUNILRAO BAHADURE	1	27	0.20	0.20	0.20	0.20	0.20	5.4	5.4	5.4	5.4	5.4
A	80	LOKESH GAUTAM TAYDE	8	28	1.60	1.60	1.60	1.60	1.60	5.6	5.6	5.6	5.6	5.6
A	81	MAHESH RAMDAS THAKARE	37	29	7.40	7.40	7.40	7.40	7.40	5.8	5.8	5.8	5.8	5.8
A	82	MANAV SUBHASHRAO INGOLE	0	27	0.00	0.00	0.00	0.00	0.00	5.4	5.4	5.4	5.4	5.4
A	83	MANTHAN GAJANAN RUMALE	2	27	0.40	0.40	0.40	0.40	0.40	5.4	5.4	5.4	5.4	5.4
A	84	MAYUR GANESH RATHOD	0	27	0.00	0.00	0.00	0.00	0.00	5.4	5.4	5.4	5.4	5.4
A	85	NAYAN AJAYRAO BELGE	13	29	2.60	2.60	2.60	2.60	2.60	5.8	5.8	5.8	5.8	5.8
A	86	NAYAN MAHADEO LOKHANDE	8	27	1.60	1.60	1.60	1.60	1.60	5.4	5.4	5.4	5.4	5.4
A	87	NIKHIL DATTARAJ KARWADE	6	28	1.20	1.20	1.20	1.20	1.20	5.6	5.6	5.6	5.6	5.6
A	88	NIKHIL MILIND GAIKWAD	0	27	0.00	0.00	0.00	0.00	0.00	5.4	5.4	5.4	5.4	5.4
A	89	NIKHIL PUNDALIK PURKAM	0	27	0.00	0.00	0.00	0.00	0.00	5.4	5.4	5.4	5.4	5.4
A	90	NISHIKANT DHANPAL GOTE	16	28	3.20	3.20	3.20	3.20	3.20	5.6	5.6	5.6	5.6	5.6
A	91	OMKAR RAMESHWAR GORE	12	27	2.40	2.40	2.40	2.40	2.40	5.4	5.4	5.4	5.4	5.4
A	92	PALASH PANKAJ BHAGAT	2	27	0.40	0.40	0.40	0.40	0.40	5.4	5.4	5.4	5.4	5.4
A	93	PAVAN HANSRAJ PAWAR	2	27	0.40	0.40	0.40	0.40	0.40	5.4	5.4	5.4	5.4	5.4
A	94	PRAJWAL GAJANAN LONKAR	9	27	1.80	1.80	1.80	1.80	1.80	5.4	5.4	5.4	5.4	5.4
A	95	PRAJWAL VISHNUKANT HULKE	7	27	1.40	1.40	1.40	1.40	1.40	5.4	5.4	5.4	5.4	5.4
A	96	PRAJYOT KISAN GUDE	2	27	0.40	0.40	0.40	0.40	0.40	5.4	5.4	5.4	5.4	5.4
A	97	PRANAY DIPAK PADGHAMOD	2	27	0.40	0.40	0.40	0.40	0.40	5.4	5.4	5.4	5.4	5.4
A	98	PRATHAMESH MANOHAR KUMBHARE	9	28	1.80	1.80	1.80	1.80	1.80	5.6	5.6	5.6	5.6	5.6
A	99	PRATIK RAMBHAU KHERE	8	27	1.60	1.60	1.60	1.60	1.60	5.4	5.4	5.4	5.4	5.4
A	100	PRATIK SUBHASH GAULKAR	0	27	0.00	0.00	0.00	0.00	0.00	5.4	5.4	5.4	5.4	5.4
A	101	RAJA DILIP BANARJI	0	27	0.00	0.00	0.00	0.00	0.00	5.4	5.4	5.4	5.4	5.4
A	102	RAJKUMAR SACHIN INGALE	10	28	2.00	2.00	2.00	2.00	2.00	5.6	5.6	5.6	5.6	5.6
A	103	RAM RAJESH DESHPANDE	15	29	3.00	3.00	3.00	3.00	3.00	5.8	5.8	5.8	5.8	5.8
A	104	ROHAN SHIVCHAND RATHOD	2	27	0.40	0.40	0.40	0.40	0.40	5.4	5.4	5.4	5.4	5.4
A	105	ROSHAN ARUNRAO KITE	0	27	0.00	0.00	0.00	0.00	0.00	5.4	5.4	5.4	5.4	5.4
A	106	RUDRESH VILASRAO PARDHEKAR	8	29	1.60	1.60	1.60	1.60	1.60	5.8	5.8	5.8	5.8	5.8
A	107	RUSHIKESH SUNIL UBALE	10	27	2.00	2.00	2.00	2.00	2.00	5.4	5.4	5.4	5.4	5.4
A	108	SAGAR VILASRAO SURKAR	0	27	0.00	0.00	0.00	0.00	0.00	5.4	5.4	5.4	5.4	5.4
A	109	SAGAR VISHRAM GAIKWAD	13	28	2.60	2.60	2.60	2.60	2.60	5.6	5.6	5.6	5.6	5.6
A	110	SAHIL SUNIL SONPITALE	0	27	0.00	0.00	0.00	0.00	0.00	5.4	5.4	5.4	5.4	5.4
A	111	SAMEER MAHADEV KHADSE	8	28	1.60	1.60	1.60	1.60	1.60	5.6	5.6	5.6	5.6	5.6
A	112	SAMYAK DILIP JUMORE	5	27	1.00	1.00	1.00	1.00	1.00	5.4	5.4	5.4	5.4	5.4
A	113	SAURABH BARKU RAUT	19	27	3.80	3.80	3.80	3.80	3.80	5.4	5.4	5.4	5.4	5.4
A	114	SHRIKANT PRAMOD PANCHAGADE	4	27	0.80	0.80	0.80	0.80	0.80	5.4	5.4	5.4	5.4	5.4
A	115	SUMIT GAJANAN KASHIKAR	4	28	0.80	0.80	0.80	0.80	0.80	5.6	5.6	5.6	5.6	5.6
A	116	SURAJ PRAFUL MOKDE	0	27	0.00	0.00	0.00	0.00	0.00	5.4	5.4	5.4	5.4	5.4
A	117	SYED NISAR SYED NAZEER	0	27	0.00	0.00	0.00	0.00	0.00	5.4	5.4	5.4	5.4	5.4
A	118	TUSHAR ANIL MAHAKALKAR	0	27	0.00	0.00	0.00	0.00	0.00	5.4	5.4	5.4	5.4	5.4
A	119	TUSHAR ARJUN SUBRAMANIAM	0	28	0.00	0.00	0.00	0.00	0.00	5.6	5.6	5.6	5.6	5.6
A	120	TUSHAR PRAVIN TAPASE	13	27	2.60	2.60	2.60	2.60	2.60	5.4	5.4	5.4	5.4	5.4
A	121	UJWAL RAVINDRA NAGRALE	12	28	2.40	2.40	2.40	2.40	2.40	5.6	5.6	5.6	5.6	5.6
A	122	VAIBHAV RAJESH RATHOD	0	27	0.00	0.00	0.00	0.00	0.00	5.4	5.4	5.4	5.4	5.4
A	123	VANSH JANARDHAN GAJBHIYE	8	28	1.60	1.60	1.60	1.60	1.60	5.6	5.6	5.6	5.6	5.6
A	124	VEDANT RAJENDRA NASRE	4	27	0.80	0.80	0.80	0.80	0.80	5.4	5.4	5.4	5.4	5.4
A	125	VEDANT VINOD SHRIPADWAR	3	27	0.60	0.60	0.60	0.60	0.60	5.4	5.4	5.4	5.4	5.4
A	126	VIRENDRA SHIVLAL RATHOD	32	29	6.40	6.40	6.40	6.40	6.40	5.8	5.8	5.8	5.8	5.8
A	127	VISHAL BHIMRAO BANSOD	7	27	1.40	1.40	1.40	1.40	1.40	5.4	5.4	5.4	5.4	5.4
A	128	VISHAL JANRAO MADAVI	2	27	0.40	0.40	0.40	0.40	0.40	5.4	5.4	5.4	5.4	5.4
A	129	VIVEK SURESH AWACHAT	8	28	1.60	1.60	1.60	1.60	1.60	5.6	5.6	5.6	5.6	5.6
A	130	VRUSHABH KISHOR PUSADKAR	6	27	1.20	1.20	1.20	1.20	1.20	5.4	5.4	5.4	5.4	5.4
A	131	YASH KISHOR CHAUDHARI	0	28	0.00	0.00	0.00	0.00	0.00	5.6	5.6	5.6	5.6	5.6

A	132	YASH SUDHAKAR MENDHULE	0	27	0.00	0.00	0.00	0.00	0.00	5.4	5.4	5.4	5.4	5.4		
					200.40	200.40	200.40	200.40	200.40	734.40	734.40	734.40	734.40	734.40		
				Average	1.52	1.52	1.52	1.52	1.52	5.56	5.56	5.56	5.56	5.56		

Total number of students meeting the requirement (M) 56 56 56 56 56 75 75 75 75 75

Measuring CO attainment through University Examination

CO Attainment	CO1		CO2		CO3		CO4		CO5	
	No.	%	No.	%	No.	%	No.	%	No.	%
Total number of students meeting the requirement (M)	56	42.42	56	42.42	56	42.42	56	42.42	56	42.42
Total number of students not meeting therequirement (N)	76	57.58	76	57.58	76	57.58	76	57.58	76	57.58
Total number of students	132		132		132		132		132	

Measuring CO attainment through Internal Examination

CO Attainment	CO1		CO2		CO3		CO4		CO5	
	No.	%	No.	%	No.	%	No.	%	No.	%
Total number of students meeting the requirement (M)	75	56.81818	75	56.81818	75	56.81818	75	56.81818	75	56.81818
Total number of students not meeting therequirement (N)	57	43.18182	57	43.18182	57	43.18182	57	43.18182	57	43.18182
Total number of students	132		132		132		132		132	

CO Attainment	CO1	CO2	CO3	CO4	CO5
University Examination 70%	42.42 29.70	42.42 29.70	42.42 29.70	42.42 29.70	42.42 29.70
Internal Examination 30%	56.82 17.05	56.82 17.05	56.82 17.05	56.82 17.05	56.82 17.05
Attainment considering (70%+30%)	46.74	46.74	46.74	46.74	46.74
	NO	NO	NO	NO	NO

CO Attainment

CO	Target set	Actual attainment	CO Attended/not Attended	Gap in %	Action Propose to bridge the gap
CO1	50%	46.74	NO		Remedial Classes
CO2	50%	46.74	NO		
CO3	50%	46.74	NO		
CO4	50%	46.74	NO		
CO5	50%	46.74	NO		

PROGRAM OUTCOMES Direct Assessment

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	x	x												
CO2	x	x												
CO3	x	x												
CO4	x	x			x					x				
CO5	x	x	x											

CONTRIBUTION OF COURSE OUTCOME TO DIRECT PROGRAM OUTCOMES

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	3												
CO2	3	3												
CO3	3	3			3					3				
CO4	3	3												
CO5	3	3	3											

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	46.74	46.74	0	0	0	0	0	0	0	0	0	0	0	0
CO2	46.74	46.74	0	0	0	0	0	0	0	0	0	0	0	0
CO3	46.74	46.74	0	0	46.74	0	0	0	0	46.74	0	0	0	0
CO4	46.74	46.74	0	0	0	0	0	0	0	0	0	0	0	0
CO5	46.74	46.74	46.74	0	0	0	0	0	0	0	0	0	0	0
Average.	233.7	233.7	46.74	0	46.74	0	0	0	0	46.74	0	0	0	0
	46.74	46.74	46.74	0.00	46.74	0	0	0	0	46.74	0	0	0	0

Energy & Environment

Course Outcomes (Cos):

Upon successful completion of this course the student will be able to:

CO1	Obtain the knowledge of solid and gaseous fuels and their Calorific Value determination.
CO2	Recognize the type of liquid fuels and their uses in IC engines.
CO3	Apply the knowledge about the use of alternative sources of energy & utilize solid waste
CO4	Analyze the impacts of Industrial pollution and its control
CO5	Develop innovative ideas for use of advanced materials in sustainable development.

PROGRAM OUTCOMES Direct Assessment

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	x	x			X	X	X							
CO2	x	x			X	X	X				X			
CO3	x	x					X				X			
CO4	x	x			x					x				
CO5	x	x	x				X				X			

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	3			3	2	2							
CO2	3	3			2	2	2				2			
CO3	3	3					3			3	2			
CO4	3	3			2									
CO5	3	3	3				1				1			

Academic Session 2023-24(Odd Semester)

Energy & Environment

Sec.	Roll No	Name of the Student	IE		CO attainment : University Examination					CO attainment : Internal Examination				
			TU	TI	CO1	CO2	CO3	CO4	CO5	CO1	CO2	CO3	CO4	CO5
A	1	AARY ASHOK NIMBORKAR	13	29	2.60	2.60	2.60	2.60	2.60	5.8	5.8	5.8	5.8	5.8
A	2	AKANKSHA SANJAY SARPUTE	17	29	3.40	3.40	3.40	3.40	3.40	5.8	5.8	5.8	5.8	5.8
A	3	ASHWINI VIJAY MHAISKAR	4	28	0.80	0.80	0.80	0.80	0.80	5.6	5.6	5.6	5.6	5.6
A	4	BHUMIKA PREMRAJ PANDIT	2	28	0.40	0.40	0.40	0.40	0.40	5.6	5.6	5.6	5.6	5.6
A	5	DEVYANI ARVIND BHOYAR	12	29	2.40	2.40	2.40	2.40	2.40	5.8	5.8	5.8	5.8	5.8
A	6	DURGA SHIVRAM JADHAO	4	28	0.80	0.80	0.80	0.80	0.80	5.6	5.6	5.6	5.6	5.6
A	7	GAURI GUNVANT RAUT	21	29	4.20	4.20	4.20	4.20	4.20	5.8	5.8	5.8	5.8	5.8
A	8	JANHAVI RAVINDRA MESHARAM	0	28	0.00	0.00	0.00	0.00	0.00	5.6	5.6	5.6	5.6	5.6
A	9	KHUSHI ANIL DESHMUKH	11	28	2.20	2.20	2.20	2.20	2.20	5.6	5.6	5.6	5.6	5.6
A	10	KIRTI RAJESH ITANKAR	4	28	0.80	0.80	0.80	0.80	0.80	5.6	5.6	5.6	5.6	5.6
A	11	KOMAL PRAKASH RASOKAR	1	28	0.20	0.20	0.20	0.20	0.20	5.6	5.6	5.6	5.6	5.6
A	12	KRUTIKA DATTA RATHOD	3	28	0.60	0.60	0.60	0.60	0.60	5.6	5.6	5.6	5.6	5.6
A	13	MANASVI RAMBHAU ULLEWAR	24	28	4.80	4.80	4.80	4.80	4.80	5.6	5.6	5.6	5.6	5.6
A	14	MOHINI ANIL BHARADE	24	28	4.80	4.80	4.80	4.80	4.80	5.6	5.6	5.6	5.6	5.6
A	15	NIKHITA RAMKRUSHNA LADHI	19	28	3.80	3.80	3.80	3.80	3.80	5.6	5.6	5.6	5.6	5.6
A	16	PALLAVI SANJAY RATHOD	12	28	2.40	2.40	2.40	2.40	2.40	5.6	5.6	5.6	5.6	5.6
A	17	PAYAL GAJANAN HATTIMARE	6	28	1.20	1.20	1.20	1.20	1.20	5.6	5.6	5.6	5.6	5.6
A	18	PRANJALI GAJANAN JADHAO	6	28	1.20	1.20	1.20	1.20	1.20	5.6	5.6	5.6	5.6	5.6
A	19	PRATIKSHA JIVANRAO DESHMUKH	4	28	0.80	0.80	0.80	0.80	0.80	5.6	5.6	5.6	5.6	5.6
A	20	PRATIKSHA SUBHASHRAO URADE	13	29	2.60	2.60	2.60	2.60	2.60	5.8	5.8	5.8	5.8	5.8
A	21	PRERNA MAROTTI THOBHARE	25	28	5.00	5.00	5.00	5.00	5.00	5.6	5.6	5.6	5.6	5.6
A	22	RASIKA RAVINDRARAO KEVATE	2	28	0.40	0.40	0.40	0.40	0.40	5.6	5.6	5.6	5.6	5.6
A	23	ROHINI VINOD BHAGWAT	25	28	5.00	5.00	5.00	5.00	5.00	5.6	5.6	5.6	5.6	5.6
A	24	ROSHANI UJWAL WASNIK	22	29	4.40	4.40	4.40	4.40	4.40	5.8	5.8	5.8	5.8	5.8
A	25	RUTUJA SANJAY GAIKWAD	7	28	1.40	1.40	1.40	1.40	1.40	5.6	5.6	5.6	5.6	5.6
A	26	SAKSHI SURESH DHAGE	0	28	0.00	0.00	0.00	0.00	0.00	5.6	5.6	5.6	5.6	5.6
A	27	SAKSHI VIJAY KHADE	15	28	3.00	3.00	3.00	3.00	3.00	5.6	5.6	5.6	5.6	5.6
A	28	SAKSHI VINOD LONARE	4	28	0.80	0.80	0.80	0.80	0.80	5.6	5.6	5.6	5.6	5.6
A	29	SAMIKSHA DHANRAJ BHADE	4	28	0.80	0.80	0.80	0.80	0.80	5.6	5.6	5.6	5.6	5.6
A	30	SANDHYA PANDURANG KOWE	0	28	0.00	0.00	0.00	0.00	0.00	5.6	5.6	5.6	5.6	5.6
A	31	SANIKA SANJAY DHARMIK	10	28	2.00	2.00	2.00	2.00	2.00	5.6	5.6	5.6	5.6	5.6
A	32	SHIVANI GAJANAN DHOTE	9	29	1.80	1.80	1.80	1.80	1.80	5.8	5.8	5.8	5.8	5.8
A	33	SHIVANI SHALIK RASE	0	27	0.00	0.00	0.00	0.00	0.00	5.4	5.4	5.4	5.4	5.4
A	34	SHIVANI VISHNU WAGHMARE	0	27	0.00	0.00	0.00	0.00	0.00	5.4	5.4	5.4	5.4	5.4
A	35	SHRAVANI GOPALRAO CHAUDHARI	11	28	2.20	2.20	2.20	2.20	2.20	5.6	5.6	5.6	5.6	5.6
A	36	SHREYA MOHANRAO KHAWSHI	9	28	1.80	1.80	1.80	1.80	1.80	5.6	5.6	5.6	5.6	5.6
A	37	SHWETA JIVANRAO CHIDE	9	28	1.80	1.80	1.80	1.80	1.80	5.6	5.6	5.6	5.6	5.6
A	38	SNEHA CHANDRASHEKHAR NIMKARDE	10	28	2.00	2.00	2.00	2.00	2.00	5.6	5.6	5.6	5.6	5.6
A	39	SONAL SHANKARRAO SHEGOKAR	10	28	2.00	2.00	2.00	2.00	2.00	5.6	5.6	5.6	5.6	5.6
A	40	SUHANI PUNYASHWAR BARDE	0	27	0.00	0.00	0.00	0.00	0.00	5.4	5.4	5.4	5.4	5.4
A	41	SWAJAL NITIN MAHALLE	1	28	0.20	0.20	0.20	0.20	0.20	5.6	5.6	5.6	5.6	5.6
A	42	TEJASWINI ANIL RATHOD	16	28	3.20	3.20	3.20	3.20	3.20	5.6	5.6	5.6	5.6	5.6
A	43	VAIBHAVI NARESH KHUNE	18	29	3.60	3.60	3.60	3.60	3.60	5.8	5.8	5.8	5.8	5.8
A	44	VAISHNAVI BABARAO CHAVHAN	4	28	0.80	0.80	0.80	0.80	0.80	5.6	5.6	5.6	5.6	5.6
A	45	VAISHNAVI BARSHIRAM MOHJE	0	28	0.00	0.00	0.00	0.00	0.00	5.6	5.6	5.6	5.6	5.6
A	46	VAISHNAVI SUNIL VAIDYA	1	27	0.20	0.20	0.20	0.20	0.20	5.4	5.4	5.4	5.4	5.4
A	47	VEDIKA SANJAY BHASME	4	28	0.80	0.80	0.80	0.80	0.80	5.6	5.6	5.6	5.6	5.6
A	48	VEDIKA VILAS CHAUDHARI	5	28	1.00	1.00	1.00	1.00	1.00	5.6	5.6	5.6	5.6	5.6
A	49	VIDHI SACHIN LOHIYA	11	28	2.20	2.20	2.20	2.20	2.20	5.6	5.6	5.6	5.6	5.6
A	50	YASHASHRI JIWAN MAHALLE	9	28	1.80	1.80	1.80	1.80	1.80	5.6	5.6	5.6	5.6	5.6
A	51	ABHAY GANESH MISHRA	6	28	1.20	1.20	1.20	1.20	1.20	5.6	5.6	5.6	5.6	5.6
A	52	ABHJEET GAJANAN KHAWASE	11	28	2.20	2.20	2.20	2.20	2.20	5.6	5.6	5.6	5.6	5.6

A	53	ABHISHEK SANJAY PATRE	3	28	0.60	0.60	0.60	0.60	0.60	5.6	5.6	5.6	5.6	5.6
A	54	ADESH CHANDRAVILAS SONUNE	7	28	1.40	1.40	1.40	1.40	1.40	5.6	5.6	5.6	5.6	5.6
A	55	ADITYA MULCHAND RAUT	5	28	1.00	1.00	1.00	1.00	1.00	5.6	5.6	5.6	5.6	5.6
A	56	AMIT AMOL KHADE	0	28	0.00	0.00	0.00	0.00	0.00	5.6	5.6	5.6	5.6	5.6
A	57	ANIKET AMOL PAL	0	28	0.00	0.00	0.00	0.00	0.00	5.6	5.6	5.6	5.6	5.6
A	58	ANSHUL MANOHARRAO ZADE	5	29	1.00	1.00	1.00	1.00	1.00	5.8	5.8	5.8	5.8	5.8
A	59	ARHANT ANIL ONKAR	21	29	4.20	4.20	4.20	4.20	4.20	5.8	5.8	5.8	5.8	5.8
A	60	ARPIT JAYPAL NADAGAWALI	24	28	4.80	4.80	4.80	4.80	4.80	5.6	5.6	5.6	5.6	5.6
A	61	ARPIT PRASHANT SONATAKKE	4	27	0.80	0.80	0.80	0.80	0.80	5.4	5.4	5.4	5.4	5.4
A	62	ARYAN DILIP DIOLE	12	28	2.40	2.40	2.40	2.40	2.40	5.6	5.6	5.6	5.6	5.6
A	63	ARYAN VIJAY KALE	10	28	2.00	2.00	2.00	2.00	2.00	5.6	5.6	5.6	5.6	5.6
A	64	ATHARV RAJESH WARKARI	4	28	0.80	0.80	0.80	0.80	0.80	5.6	5.6	5.6	5.6	5.6
A	65	AYUSH RAHUL PATIL	9	28	1.80	1.80	1.80	1.80	1.80	5.6	5.6	5.6	5.6	5.6
A	66	AYUSH RAJESH RANGARI	26	29	5.20	5.20	5.20	5.20	5.20	5.8	5.8	5.8	5.8	5.8
A	67	BHAWESH ARUN BAWANE	0	28	0.00	0.00	0.00	0.00	0.00	5.6	5.6	5.6	5.6	5.6
A	68	BHIKU NURSING RATHOD	0	28	0.00	0.00	0.00	0.00	0.00	5.6	5.6	5.6	5.6	5.6
A	69	BODHISATVA ANIL BAHADE	0	27	0.00	0.00	0.00	0.00	0.00	5.4	5.4	5.4	5.4	5.4
A	70	HARSHAL SATISH WANDILE	0	28	0.00	0.00	0.00	0.00	0.00	5.6	5.6	5.6	5.6	5.6
A	71	HIMANSHU NAMDEORAO MENDHULE	1	28	0.20	0.20	0.20	0.20	0.20	5.6	5.6	5.6	5.6	5.6
A	72	HIMESH KAWADUJI BAHURE	7	28	1.40	1.40	1.40	1.40	1.40	5.6	5.6	5.6	5.6	5.6
A	73	HITESH YASHWANT GOUPALE	16	28	3.20	3.20	3.20	3.20	3.20	5.6	5.6	5.6	5.6	5.6
A	74	JIVAN MAHADEORAO WAGHMARE	8	28	1.60	1.60	1.60	1.60	1.60	5.6	5.6	5.6	5.6	5.6
A	75	KARTIK ASHISH THAKRE	6	28	1.20	1.20	1.20	1.20	1.20	5.6	5.6	5.6	5.6	5.6
A	76	KARTIK PRAVIN KHIOBE	3	28	0.60	0.60	0.60	0.60	0.60	5.6	5.6	5.6	5.6	5.6
A	77	KUNAL DNYANESHWAR LENDE	0	27	0.00	0.00	0.00	0.00	0.00	5.4	5.4	5.4	5.4	5.4
A	78	KUNAL RAJESH KELATKAR	4	26	0.80	0.80	0.80	0.80	0.80	5.2	5.2	5.2	5.2	5.2
A	79	KUNAL SUNILRAO BAHADURE	1	28	0.20	0.20	0.20	0.20	0.20	5.6	5.6	5.6	5.6	5.6
A	80	LOKESH GAUTAM TAYDE	7	28	1.40	1.40	1.40	1.40	1.40	5.6	5.6	5.6	5.6	5.6
A	81	MAHESH RAMDAS THAKARE	37	29	7.40	7.40	7.40	7.40	7.40	5.8	5.8	5.8	5.8	5.8
A	82	MANAV SUBHASHRAO INGOLE	0	26	0.00	0.00	0.00	0.00	0.00	5.2	5.2	5.2	5.2	5.2
A	83	MANTHAN GAJANAN RUMALE	2	28	0.40	0.40	0.40	0.40	0.40	5.6	5.6	5.6	5.6	5.6
A	84	MAYUR GANESH RATHOD	5	28	1.00	1.00	1.00	1.00	1.00	5.6	5.6	5.6	5.6	5.6
A	85	NAYAN AJAYRAO BELGE	20	28	4.00	4.00	4.00	4.00	4.00	5.6	5.6	5.6	5.6	5.6
A	86	NAYAN MAHADEO LOKHANDE	15	28	3.00	3.00	3.00	3.00	3.00	5.6	5.6	5.6	5.6	5.6
A	87	NIKHIL DATTARAJ KARWADE	4	28	0.80	0.80	0.80	0.80	0.80	5.6	5.6	5.6	5.6	5.6
A	88	NIKHIL MILIND GAIKWAD	3	28	0.60	0.60	0.60	0.60	0.60	5.6	5.6	5.6	5.6	5.6
A	89	NIKHIL PUNDALIK PURKAM	0	27	0.00	0.00	0.00	0.00	0.00	5.4	5.4	5.4	5.4	5.4
A	90	NISHIKANT DHANPAL GOTE	16	29	3.20	3.20	3.20	3.20	3.20	5.8	5.8	5.8	5.8	5.8
A	91	OMKAR RAMESHWAR GORE	14	28	2.80	2.80	2.80	2.80	2.80	5.6	5.6	5.6	5.6	5.6
A	92	PALASH PANKAJ BHAGAT	12	28	2.40	2.40	2.40	2.40	2.40	5.6	5.6	5.6	5.6	5.6
A	93	PAVAN HANSRAJ PAWAR	4	27	0.80	0.80	0.80	0.80	0.80	5.4	5.4	5.4	5.4	5.4
A	94	PRAJWAL GAJANAN LONKAR	6	28	1.20	1.20	1.20	1.20	1.20	5.6	5.6	5.6	5.6	5.6
A	95	PRAJWAL VISHNUKANT HULKE	7	28	1.40	1.40	1.40	1.40	1.40	5.6	5.6	5.6	5.6	5.6
A	96	PRAJYOT KISAN GUDE	1	28	0.20	0.20	0.20	0.20	0.20	5.6	5.6	5.6	5.6	5.6
A	97	PRANAY DIPAK PADGHAMOD	0	27	0.00	0.00	0.00	0.00	0.00	5.4	5.4	5.4	5.4	5.4
A	98	PRATHAMESH MANOHAR KUMBHARE	3	28	0.60	0.60	0.60	0.60	0.60	5.6	5.6	5.6	5.6	5.6
A	99	PRATIK RAMBHAU KHERE	8	28	1.60	1.60	1.60	1.60	1.60	5.6	5.6	5.6	5.6	5.6
A	100	PRATIK SUBHASH GAULKAR	15	28	3.00	3.00	3.00	3.00	3.00	5.6	5.6	5.6	5.6	5.6
A	101	RAJA DILIP BANARJI	0	28	0.00	0.00	0.00	0.00	0.00	5.6	5.6	5.6	5.6	5.6
A	102	RAJKUMAR SACHIN INGALE	13	28	2.60	2.60	2.60	2.60	2.60	5.6	5.6	5.6	5.6	5.6
A	103	RAM RAJESH DESHPANDE	28	29	5.60	5.60	5.60	5.60	5.60	5.8	5.8	5.8	5.8	5.8
A	104	ROHAN SHIVCHAND RATHOD	2	28	0.40	0.40	0.40	0.40	0.40	5.6	5.6	5.6	5.6	5.6
A	105	ROSHAN ARUNRAO KITE	0	27	0.00	0.00	0.00	0.00	0.00	5.4	5.4	5.4	5.4	5.4
A	106	RUDRESH VILASRAO PARDHEKAR	0	28	0.00	0.00	0.00	0.00	0.00	5.6	5.6	5.6	5.6	5.6
A	107	RUSHIKESH SUNIL UBALE	5	28	1.00	1.00	1.00	1.00	1.00	5.6	5.6	5.6	5.6	5.6
A	108	SAGAR VILASRAO SURKAR	0	27	0.00	0.00	0.00	0.00	0.00	5.4	5.4	5.4	5.4	5.4
A	109	SAGAR VISHRAM GAIKWAD	12	28	2.40	2.40	2.40	2.40	2.40	5.6	5.6	5.6	5.6	5.6
A	110	SAHIL SUNIL SONPITALE	0	26	0.00	0.00	0.00	0.00	0.00	5.2	5.2	5.2	5.2	5.2
A	111	SAMEER MAHADEV KHADSE	9	28	1.80	1.80	1.80	1.80	1.80	5.6	5.6	5.6	5.6	5.6
A	112	SAMYAK DILIP JUMORE	6	28	1.20	1.20	1.20	1.20	1.20	5.6	5.6	5.6	5.6	5.6
A	113	SAURABH BARKU RAUT	9	28	1.80	1.80	1.80	1.80	1.80	5.6	5.6	5.6	5.6	5.6
A	114	SHRIKANT PRAMOD PANCHGADE	9	28	1.80	1.80	1.80	1.80	1.80	5.6	5.6	5.6	5.6	5.6
A	115	SUMIT GAJANAN KASHIKAR	0	28	0.00	0.00	0.00	0.00	0.00	5.6	5.6	5.6	5.6	5.6
A	116	SURAJ PRAFUL MOKDE	0	26	0.00	0.00	0.00	0.00	0.00	5.2	5.2	5.2	5.2	5.2
A	117	SYED NISAR SYED NAZEER	0	28	0.00	0.00	0.00	0.00	0.00	5.6	5.6	5.6	5.6	5.6
A	118	TUSHAR ANIL MAHAKALKAR	2	28	0.40	0.40	0.40	0.40	0.40	5.6	5.6	5.6	5.6	5.6
A	119	TUSHAR ARJUN SUBRAMANIAM	4	28	0.80	0.80	0.80	0.80	0.80	5.6	5.6	5.6	5.6	5.6
A	120	TUSHAR PRAVIN TAPASE	7	28	1.40	1.40	1.40	1.40	1.40	5.6	5.6	5.6	5.6	5.6
A	121	UJJWAL RAVINDRA NAGRALE	12	28	2.40	2.40	2.40	2.40	2.40	5.6	5.6	5.6	5.6	5.6
A	122	VAIBHAV RAJESH RATHOD	0	26	0.00	0.00	0.00	0.00	0.00	5.2	5.2	5.2	5.2	5.2
A	123	VANSH JANARDHAN GAIBHIYE	5	28	1.00	1.00	1.00	1.00	1.00	5.6	5.6	5.6	5.6	5.6
A	124	VEDANT RAJENDRA NASRE	4	28	0.80	0.80	0.80	0.80	0.80	5.6	5.6	5.6	5.6	5.6
A	125	VEDANT VINOD SHIRIPADWAR	2	28	0.40	0.40	0.40	0.40	0.40	5.6	5.6	5.6	5.6	5.6
A	126	VIRENDRA SHIVLAL RATHOD	28	28	5.60	5.60	5.60	5.60	5.60	5.6	5.6	5.6	5.6	5.6
A	127	VISHAL BHIMRAO BANSOD	3	27	0.60	0.60	0.60	0.60	0.60	5.4	5.4	5.4	5.4	5.4
A	128	VISHAL JANRAO MADAVI	0	27	0.00	0.00	0.00	0.00	0.00	5.4	5.4	5.4	5.4	5.4
A	129	VIVEK SURESH AWACHAT	20	28	4.00	4.00	4.00	4.00	4.00	5.6	5.6	5.6	5.6	5.6
A	130	VRUSHABH KISHOR PUSADKAR	7	28	1.40	1.40	1.40	1.40	1.40	5.6	5.6	5.6	5.6	5.6

A	131	YASH KISHOR CHAUDHARI	20	29	4.00	4.00	4.00	4.00	4.00	5.8	5.8	5.8	5.8	5.8		
A	132	YASH SUDHAKAR MENDHULE	16	28	3.20	3.20	3.20	3.20	3.20	5.6	5.6	5.6	5.6	5.6		
					207.20	207.20	207.20	207.20	207.20	737.40	737.40	737.40	737.40	737.40		
				Average	1.57	1.57	1.57	1.57	1.57	5.59	5.59	5.59	5.59	5.59		
Total number of students meeting the requirement (M)			53	53	53	53	53	53	113	113	113	113	113			

Measuring CO attainment through University Examination														
CO Attainment	CO1		CO2		CO3		CO4		CO5					
	No.	%	No.	%	No.	%	No.	%	No.	%				
Total number of students meeting the requirement (M)	53	40.15	53	40.15	53	40.15	53	40.15	53	40.15	53	40.15		
Total number of students not meeting therequirement (N)	79	59.85	79	59.85	79	59.85	79	59.85	79	59.85	79	59.85		
Total number of students	132		132		132		132		132		132			

Measuring CO attainment through Internal Examination														
CO Attainment	CO1		CO2		CO3		CO4		CO5					
	No.	%	No.	%	No.	%	No.	%	No.	%				
Total number of students meeting the requirement (M)	113	85.60606	113	85.60606	113	85.60606	113	85.60606	113	85.60606	113	85.60606		
Total number of students not meeting therequirement (N)	19	14.39394	19	14.39394	19	14.39394	19	14.39394	19	14.39394	19	14.39394		
Total number of students	132		132		132		132		132		132			

CO Attainment					
	CO1	CO2	CO3	CO4	CO5
University Examination	40.15	40.15	40.15	40.15	40.15
70%	28.11	28.11	28.11	28.11	28.11
Internal Examination	85.61	85.61	85.61	85.61	85.61
30%	25.68	25.68	25.68	25.68	25.68
Attainment considering (70%+30%)	53.79	53.79	53.79	53.79	53.79
	YES	YES	YES	YES	YES

CO Attainment					
CO	Target set	Actual attainment	CO Attended/not Attended	Gap in %	Action Propose to bridge the gap
CO1	50%	53.79	YES		
CO2	50%	53.79	YES		
CO3	50%	53.79	YES		
CO4	50%	53.79	YES		
CO5	50%	53.79	YES		

PROGRAM OUTCOMES Direct Assessment

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	x	x			X	X	X							
CO2	x	x			X	X	X				X			
CO3	x	x					X				X			
CO4	x	x			x					x				
CO5	x	x	x				X				X			

CONTRIBUTION OF COURSE OUTCOME TO DIRECT PROGRAM OUTCOMES

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	3			3	2	2							
CO2	3	3			2	2	2				2			
CO3	3	3					3			3	2			
CO4	3	3			2									
CO5	3	3	3				1				1			

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	53.79	53.79	0	0	53.79	35.86	35.86	0	0	0	0	0	0	0
CO2	53.79	53.79	0	0	35.86	35.86	35.86	0	0	0	35.86	0	0	0
CO3	53.79	53.79	0	0	0	0	53.79	0	0	53.79	35.86	0	0	0
CO4	53.79	53.79	0	0	35.86	0	0	0	0	0	0	0	0	0
CO5	53.79	53.79	53.79	0	0	0	17.93	0	0	0	17.93	0	0	0
Average.	53.79	53.79	53.79	0.00	41.83667	23.90667	47.81333	0	0	53.79	29.88333	0	0	0

Mathematics-II

Course Outcomes (Cos):

Upon successful completion of this course the student will be able to:

CO1	Analyze real world scenarios to recognize when integrals are appropriate, formulate
CO2	Define and understand the geometry of vector differential operators and line and surface
CO3	Explain and apply principles of study design and data collection.
CO4	Develop an ability to identify, formulate and/or solve real world problems.
CO5	Understand the impact of scientific and engineering solutions in a global and societal

PROGRAM OUTCOMES Direct Assessment

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	x	x			X	X	X							
CO2	x	x			X	X	X				X			
CO3	x	x					X				X			
CO4	x	x			x					x				
CO5	x	x	x				X				X			

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	3			3	2	2							
CO2	3	3			2	2	2				2			
CO3	3	3					3			3	2			
CO4	3	3			2									
CO5	3	3	3				1				1			

Academic Session 2023-24(Even Semester)

Mathematics-II

Sec.	Roll No	Name of the Student	IE		CO attainment : University Examination					CO attainment : Internal Examination				
			TU	TI	CO1	CO2	CO3	CO4	CO5	CO1	CO2	CO3	CO4	CO5
A	1	AARYA ASHOK NIMBORKAR	1	28	0.20	0.20	0.20	0.20	0.20	5.6	5.6	5.6	5.6	5.6
A	2	AKANKSHA SANJAY SARPUTE	7	28	1.40	1.40	1.40	1.40	1.40	5.6	5.6	5.6	5.6	5.6
A	3	ASHWINI VIJAY MHAISKAR	3	28	0.60	0.60	0.60	0.60	0.60	5.6	5.6	5.6	5.6	5.6
A	4	BHUMIKA PREMRAJ PANDIT	2	28	0.40	0.40	0.40	0.40	0.40	5.6	5.6	5.6	5.6	5.6
A	5	DEVYANI ARVIND BHOYAR	10	28	2.00	2.00	2.00	2.00	2.00	5.6	5.6	5.6	5.6	5.6
A	6	DURGA SHIVRAM JADHAO	12	28	2.40	2.40	2.40	2.40	2.40	5.6	5.6	5.6	5.6	5.6
A	7	GAURI GUNVANT RAUT	20	29	4.00	4.00	4.00	4.00	4.00	5.8	5.8	5.8	5.8	5.8
A	8	JANHAVI RAVINDRA MESHAM	2	28	0.40	0.40	0.40	0.40	0.40	5.6	5.6	5.6	5.6	5.6
A	9	KHUSHI ANIL DESHMUKH	3	28	0.60	0.60	0.60	0.60	0.60	5.6	5.6	5.6	5.6	5.6
A	10	KIRTI RAJESH ITANKAR	11	28	2.20	2.20	2.20	2.20	2.20	5.6	5.6	5.6	5.6	5.6
A	11	KOMAL PRAKASH RASOKAR	1	28	0.20	0.20	0.20	0.20	0.20	5.6	5.6	5.6	5.6	5.6
A	12	KRUTIKA DATTA RATHOD	1	28	0.20	0.20	0.20	0.20	0.20	5.6	5.6	5.6	5.6	5.6
A	13	MANASVI RAMBHAU ULLEWAR	22	28	4.40	4.40	4.40	4.40	4.40	5.6	5.6	5.6	5.6	5.6
A	14	MOHINI ANIL BHARADE	18	29	3.60	3.60	3.60	3.60	3.60	5.8	5.8	5.8	5.8	5.8
A	15	NIKHITA RAMKRUSHNA LADHI	34	29	6.80	6.80	6.80	6.80	6.80	5.8	5.8	5.8	5.8	5.8
A	16	PALLAVI SANJAY RATHOD	21	28	4.20	4.20	4.20	4.20	4.20	5.6	5.6	5.6	5.6	5.6
A	17	PAYAL GAJANAN HATTIMARE	11	28	2.20	2.20	2.20	2.20	2.20	5.6	5.6	5.6	5.6	5.6
A	18	PRANJALI GAJANAN JADHAO	13	28	2.60	2.60	2.60	2.60	2.60	5.6	5.6	5.6	5.6	5.6
A	19	PRATIKSHA JIVANRAO DESHMUKH	14	28	2.80	2.80	2.80	2.80	2.80	5.6	5.6	5.6	5.6	5.6
A	20	PRATIKSHA SUBHASHRAO URADE	23	28	4.60	4.60	4.60	4.60	4.60	5.6	5.6	5.6	5.6	5.6
A	21	PREERNA MAROTI THOBHARE	42	29	8.40	8.40	8.40	8.40	8.40	5.8	5.8	5.8	5.8	5.8
A	22	ROHINI VINOD BHAGWAT	28	29	5.60	5.60	5.60	5.60	5.60	5.8	5.8	5.8	5.8	5.8
A	23	ROSHANI UJWAL WASNIK	14	29	2.80	2.80	2.80	2.80	2.80	5.8	5.8	5.8	5.8	5.8
A	24	RUTUJA SANJAY GAIKWAD	5	28	1.00	1.00	1.00	1.00	1.00	5.6	5.6	5.6	5.6	5.6
A	25	SAKSHI SURESH DHAGE	10	28	2.00	2.00	2.00	2.00	2.00	5.6	5.6	5.6	5.6	5.6
A	26	SAKSHI VIJAY KHADE	35	29	7.00	7.00	7.00	7.00	7.00	5.8	5.8	5.8	5.8	5.8
A	27	SAKSHI VINOD LONARE	15	28	3.00	3.00	3.00	3.00	3.00	5.6	5.6	5.6	5.6	5.6
A	28	SAMIKSHA DHANRAJ BHADE	14	28	2.80	2.80	2.80	2.80	2.80	5.6	5.6	5.6	5.6	5.6
A	29	SANDHYA PANDURANG KOWE	0	28	0.00	0.00	0.00	0.00	0.00	5.6	5.6	5.6	5.6	5.6
A	30	SANIKA SANJAY DHARMIK	2	28	0.40	0.40	0.40	0.40	0.40	5.6	5.6	5.6	5.6	5.6
A	31	SHIVANI GAJANAN DHOTE	25	28	5.00	5.00	5.00	5.00	5.00	5.6	5.6	5.6	5.6	5.6
A	32	SHIVANI SHALIK RASE	0	28	0.00	0.00	0.00	0.00	0.00	5.6	5.6	5.6	5.6	5.6
A	33	SHIVANI VISHNU WAGHMARE	0	28	0.00	0.00	0.00	0.00	0.00	5.6	5.6	5.6	5.6	5.6
A	34	SHRAVANI GOPALRAO CHAUDHARI	0	27	0.00	0.00	0.00	0.00	0.00	5.4	5.4	5.4	5.4	5.4
A	35	SHREYA MOHANRAO KHAWSHI	23	29	4.60	4.60	4.60	4.60	4.60	5.8	5.8	5.8	5.8	5.8
A	36	SHWETA JIVANRAO CHIDE	10	29	2.00	2.00	2.00	2.00	2.00	5.8	5.8	5.8	5.8	5.8
A	37	SNEHA CHANDRASHEKHAR NIMKARDE	9	28	1.80	1.80	1.80	1.80	1.80	5.6	5.6	5.6	5.6	5.6
A	38	SONAL SHANKARRAO SHEGOKAR	1	28	0.20	0.20	0.20	0.20	0.20	5.6	5.6	5.6	5.6	5.6
A	39	SWAJAL NITIN MAHALLE	9	28	1.80	1.80	1.80	1.80	1.80	5.6	5.6	5.6	5.6	5.6
A	40	TEJASWINI ANIL RATHOD	27	29	5.40	5.40	5.40	5.40	5.40	5.8	5.8	5.8	5.8	5.8
A	41	VAIBHAVI NARESH KHUNE	33	29	6.60	6.60	6.60	6.60	6.60	5.8	5.8	5.8	5.8	5.8
A	42	VAISHNAVI BABARAO CHAVHAN	14	28	2.80	2.80	2.80	2.80	2.80	5.6	5.6	5.6	5.6	5.6
A	43	VAISHNAVI BARSHIRAM MOHJE	14	28	2.80	2.80	2.80	2.80	2.80	5.6	5.6	5.6	5.6	5.6
A	44	VAISHNAVI SUNIL VAIDYA	0	28	0.00	0.00	0.00	0.00	0.00	5.6	5.6	5.6	5.6	5.6
A	45	VEDIKA SANJAY BHASME	0	27	0.00	0.00	0.00	0.00	0.00	5.4	5.4	5.4	5.4	5.4
A	46	VEDIKA VILAS CHAUDHARI	10	28	2.00	2.00	2.00	2.00	2.00	5.6	5.6	5.6	5.6	5.6
A	47	VIDHI SACHIN LOHIYA	24	29	4.80	4.80	4.80	4.80	4.80	5.8	5.8	5.8	5.8	5.8
A	48	YASHASHRI JIWAN MAHALLE	28	28	5.60	5.60	5.60	5.60	5.60	5.6	5.6	5.6	5.6	5.6
A	49	ABHAY GANESH MISHRA	6	27	1.20	1.20	1.20	1.20	1.20	5.4	5.4	5.4	5.4	5.4
A	50	ABHJEET GAJANAN KHAWASE	20	28	4.00	4.00	4.00	4.00	4.00	5.6	5.6	5.6	5.6	5.6
A	51	ABHISHEK SANJAY PATRE	13	28	2.60	2.60	2.60	2.60	2.60	5.6	5.6	5.6	5.6	5.6
A	52	ADESH CHANDRAVILAS SONUNE	16	28	3.20	3.20	3.20	3.20	3.20	5.6	5.6	5.6	5.6	5.6

A	53	ADITYA MULCHAND RAUT	8	28	1.60	1.60	1.60	1.60	1.60	5.6	5.6	5.6	5.6	5.6
A	54	AMIT AMOL KHADE	9	28	1.80	1.80	1.80	1.80	1.80	5.6	5.6	5.6	5.6	5.6
A	55	ANIKET AMOL PAL	0	27	0.00	0.00	0.00	0.00	0.00	5.4	5.4	5.4	5.4	5.4
A	56	ANSHUL MANOHARRAO ZADE	24	29	4.80	4.80	4.80	4.80	4.80	5.8	5.8	5.8	5.8	5.8
A	57	ARHANT ANIL ONKAR	22	29	4.40	4.40	4.40	4.40	4.40	5.8	5.8	5.8	5.8	5.8
A	58	ARPIT JAYPAL NADAGAWALI	29	29	5.80	5.80	5.80	5.80	5.80	5.8	5.8	5.8	5.8	5.8
A	59	ARPIT PRASHANT SONATAKKE	5	27	1.00	1.00	1.00	1.00	1.00	5.4	5.4	5.4	5.4	5.4
A	60	ARYAN DILIP DHOLE	18	27	3.60	3.60	3.60	3.60	3.60	5.4	5.4	5.4	5.4	5.4
A	61	ARYAN VIJAY KALE	25	28	5.00	5.00	5.00	5.00	5.00	5.6	5.6	5.6	5.6	5.6
A	62	ATHARV RAJESH WARKARI	18	28	3.60	3.60	3.60	3.60	3.60	5.6	5.6	5.6	5.6	5.6
A	63	AYUSH RAHUL PATIL	0	27	0.00	0.00	0.00	0.00	0.00	5.4	5.4	5.4	5.4	5.4
A	64	AYUSH RAJESH RANGARI	36	29	7.20	7.20	7.20	7.20	7.20	5.8	5.8	5.8	5.8	5.8
A	65	BHAWESH ARUN BAWANE	4	28	0.80	0.80	0.80	0.80	0.80	5.6	5.6	5.6	5.6	5.6
A	66	BHIKU NURSING RATHOD	0	28	0.00	0.00	0.00	0.00	0.00	5.6	5.6	5.6	5.6	5.6
A	67	HARSHAL SATISH WANDILE	0	27	0.00	0.00	0.00	0.00	0.00	5.4	5.4	5.4	5.4	5.4
A	68	HIMESH KAWADJI BAHURE	0	28	0.00	0.00	0.00	0.00	0.00	5.6	5.6	5.6	5.6	5.6
A	69	HITESH YASHWANT GOUNPALE	29	29	5.80	5.80	5.80	5.80	5.80	5.8	5.8	5.8	5.8	5.8
A	70	JIVAN MAHADEORAO WAGHMARE	18	29	3.60	3.60	3.60	3.60	3.60	5.8	5.8	5.8	5.8	5.8
A	71	KARTIK ASHISH THAKRE	0	28	0.00	0.00	0.00	0.00	0.00	5.6	5.6	5.6	5.6	5.6
A	72	KARTIK PRAVIN KIOBE	3	28	0.60	0.60	0.60	0.60	0.60	5.6	5.6	5.6	5.6	5.6
A	73	KUNAL SUNILRAO BAHADURE	11	28	2.20	2.20	2.20	2.20	2.20	5.6	5.6	5.6	5.6	5.6
A	74	LOKESH GAUTAM TAYDE	5	28	1.00	1.00	1.00	1.00	1.00	5.6	5.6	5.6	5.6	5.6
A	75	MAHESH RAMDAS THAKARE	50	29	10.00	10.00	10.00	10.00	10.00	5.8	5.8	5.8	5.8	5.8
A	76	MANTHAN GAJANAN RUMALE	0	28	0.00	0.00	0.00	0.00	0.00	5.6	5.6	5.6	5.6	5.6
A	77	MAYUR GANESH RATHOD	24	28	4.80	4.80	4.80	4.80	4.80	5.6	5.6	5.6	5.6	5.6
A	78	NAYAN AJAYRAO BELGE	29	29	5.80	5.80	5.80	5.80	5.80	5.8	5.8	5.8	5.8	5.8
A	79	NAYAN MAHADEO LOKHANDE	12	28	2.40	2.40	2.40	2.40	2.40	5.6	5.6	5.6	5.6	5.6
A	80	NIKHIL DATTARAJ KARWADE	5	27	1.00	1.00	1.00	1.00	1.00	5.4	5.4	5.4	5.4	5.4
A	81	NIKHIL MILIND GAIKWAD	0	28	0.00	0.00	0.00	0.00	0.00	5.6	5.6	5.6	5.6	5.6
A	82	NISHIKANT DHANPAL GOTE	23	29	4.60	4.60	4.60	4.60	4.60	5.8	5.8	5.8	5.8	5.8
A	83	OMKAR RAMESHWAR GORE	11	28	2.20	2.20	2.20	2.20	2.20	5.6	5.6	5.6	5.6	5.6
A	84	PALASH PANKAJ BHAGAT	0	27	0.00	0.00	0.00	0.00	0.00	5.4	5.4	5.4	5.4	5.4
A	85	PAVAN HANSRAJ PAWAR	0	27	0.00	0.00	0.00	0.00	0.00	5.4	5.4	5.4	5.4	5.4
A	86	PRAJWAL GAJANAN LONKAR	19	28	3.80	3.80	3.80	3.80	3.80	5.6	5.6	5.6	5.6	5.6
A	87	PRAJWAL VISHNUKANT HULKE	6	28	1.20	1.20	1.20	1.20	1.20	5.6	5.6	5.6	5.6	5.6
A	88	PRAJYOT KISAN GUDE	0	28	0.00	0.00	0.00	0.00	0.00	5.6	5.6	5.6	5.6	5.6
A	89	PRANAY DIPAK PADGHAMOD	4	28	0.80	0.80	0.80	0.80	0.80	5.6	5.6	5.6	5.6	5.6
A	90	PRATHAMESH MANOHAR KUMBHARE	23	28	4.60	4.60	4.60	4.60	4.60	5.6	5.6	5.6	5.6	5.6
A	91	PRATIK RAMBHAU KHERE	20	28	4.00	4.00	4.00	4.00	4.00	5.6	5.6	5.6	5.6	5.6
A	92	PRATIK SUBHASH GAULKAR	0	28	0.00	0.00	0.00	0.00	0.00	5.6	5.6	5.6	5.6	5.6
A	93	RAJKUMAR SACHIN INGALE	8	28	1.60	1.60	1.60	1.60	1.60	5.6	5.6	5.6	5.6	5.6
A	94	RAM RAJESH DESHPANDE	0	29	0.00	0.00	0.00	0.00	0.00	5.8	5.8	5.8	5.8	5.8
A	95	ROHAN SHIVCHAND RATHOD	1	28	0.20	0.20	0.20	0.20	0.20	5.6	5.6	5.6	5.6	5.6
A	96	ROSHAN ARUNRAO KITE	0	27	0.00	0.00	0.00	0.00	0.00	5.4	5.4	5.4	5.4	5.4
A	97	RUDRESH VILASRAO PARDHEKAR	9	28	1.80	1.80	1.80	1.80	1.80	5.6	5.6	5.6	5.6	5.6
A	98	RUSHIKESH SUNIL UBALE	9	28	1.80	1.80	1.80	1.80	1.80	5.6	5.6	5.6	5.6	5.6
A	99	SAGAR VISHRAM GAIKWAD	17	29	3.40	3.40	3.40	3.40	3.40	5.8	5.8	5.8	5.8	5.8
A	100	SAMEER MAHADEV KHADSE	24	29	4.80	4.80	4.80	4.80	4.80	5.8	5.8	5.8	5.8	5.8
A	101	SAMYAK DILIP JUMORE	29	28	5.80	5.80	5.80	5.80	5.80	5.6	5.6	5.6	5.6	5.6
A	102	SAURABH BARKU RAUT	36	28	7.20	7.20	7.20	7.20	7.20	5.6	5.6	5.6	5.6	5.6
A	103	SHRIKANT PRAMOD PANCHAGADE	15	28	3.00	3.00	3.00	3.00	3.00	5.6	5.6	5.6	5.6	5.6
A	104	SUMIT GAJANAN KASHIKAR	12	28	2.40	2.40	2.40	2.40	2.40	5.6	5.6	5.6	5.6	5.6
A	105	SYED NISAR SYED NAZEER	0	27	0.00	0.00	0.00	0.00	0.00	5.4	5.4	5.4	5.4	5.4
A	106	TUSHAR ANIL MAHAKALKAR	5	28	1.00	1.00	1.00	1.00	1.00	5.6	5.6	5.6	5.6	5.6
A	107	TUSHAR ARJUN SUBRAMANIAM	8	28	1.60	1.60	1.60	1.60	1.60	5.6	5.6	5.6	5.6	5.6
A	108	TUSHAR PRAVIN TAPASE	7	28	1.40	1.40	1.40	1.40	1.40	5.6	5.6	5.6	5.6	5.6
A	109	UJWAL RAVINDRA NAGRALE	1	27	0.20	0.20	0.20	0.20	0.20	5.4	5.4	5.4	5.4	5.4
A	110	VANSH JANARDHAN GAJBHIYE	6	28	1.20	1.20	1.20	1.20	1.20	5.6	5.6	5.6	5.6	5.6
A	111	VEDANT RAJENDRA NASRE	22	28	4.40	4.40	4.40	4.40	4.40	5.6	5.6	5.6	5.6	5.6
A	112	VEDANT VINOD SHRIPADWAR	1	28	0.20	0.20	0.20	0.20	0.20	5.6	5.6	5.6	5.6	5.6
A	113	VIRENDRA SHIVLAL RATHOD	39	29	7.80	7.80	7.80	7.80	7.80	5.8	5.8	5.8	5.8	5.8
A	114	VISHAL BHIMRAO BANSOD	12	28	2.40	2.40	2.40	2.40	2.40	5.6	5.6	5.6	5.6	5.6
A	115	VIVEK SURESH AWACHAT	16	28	3.20	3.20	3.20	3.20	3.20	5.6	5.6	5.6	5.6	5.6
A	116	VRUSHABH KISHOR PUSADKAR	13	29	2.60	2.60	2.60	2.60	2.60	5.8	5.8	5.8	5.8	5.8
A	117	YASH KISHOR CHAUDHARI	26	28	5.20	5.20	5.20	5.20	5.20	5.6	5.6	5.6	5.6	5.6
A	118	YASH SUDHAKAR MENDHULE	1	28	0.20	0.20	0.20	0.20	0.20	5.6	5.6	5.6	5.6	5.6
					296.60	296.60	296.60	296.60	296.60	663.20	663.20	663.20	663.20	663.20
					Average	2.51	2.51	2.51	2.51	5.62	5.62	5.62	5.62	5.62
Total number of students meeting the requirement (M)			71	71	71	71	71	71	71	104	104	104	104	104

Measuring CO attainment through University Examination

CO Attainment	CO1		CO2		CO3		CO4		CO5	
	No.	%	No.	%	No.	%	No.	%	No.	%
Total number of students meeting the requirement (M)	71	53.79	71	53.79	71	53.79	71	53.79	71	53.79
Total number of students not meeting therequirement (N)	47	35.61	47	35.61	47	35.61	47	35.61	47	35.61
Total number of students	118		118		118		118		118	

Measuring CO attainment through Internal Examination

CO Attainment	CO1		CO2		CO3		CO4		CO5	
	No.	%	No.	%	No.	%	No.	%	No.	%
Total number of students meeting the requirement (M)	104	78.78788	104	78.78788	104	78.78788	104	78.78788	104	78.78788
Total number of students not meeting therequirement (N)	14	10.60606	14	10.60606	14	10.60606	14	10.60606	14	10.60606
Total number of students	118		118		118		118		118	

CO Attainment		CO1	CO2	CO3	CO4	CO5
University Examination	70%	53.79	53.79	53.79	53.79	53.79
		37.65	37.65	37.65	37.65	37.65
Internal Examination	30%	78.79	78.79	78.79	78.79	78.79
		23.64	23.64	23.64	23.64	23.64
Attainment considering (70%+30%)		61.29	61.29	61.29	61.29	61.29
		YES	YES	YES	YES	YES

CO Attainment

CO	Target set	Actual attainment	CO Attended/not Attended	Gap in %	Action Propose to bridge the gap
CO1	50%	61.29	YES		
CO2	50%	61.29	YES		
CO3	50%	61.29	YES		
CO4	50%	61.29	YES		
CO5	50%	61.29	YES		

PROGRAM OUTCOMES Direct Assessment

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	x	x			X	X	X							
CO2	x	x			X	X	X				X			
CO3	x	x					X				X			
CO4	x	x			x					x				
CO5	x	x	x				X				X			

CONTRIBUTION OF COURSE OUTCOME TO DIRECT PROGRAM OUTCOMES

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	3			3	2	2							
CO2	3	3			2	2	2				2			
CO3	3	3					3			3	2			
CO4	3	3			2									
CO5	3	3	3				1				1			

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	61.29	61.29	0	0	61.29	40.86	40.86	0	0	0	0	0	0	0
CO2	61.29	61.29	0	0	40.86	40.86	40.86	0	0	0	40.86	0	0	0
CO3	61.29	61.29	0	0	0	0	61.29	0	0	61.29	40.86	0	0	0
CO4	61.29	61.29	0	0	40.86	0	0	0	0	0	0	0	0	0
CO5	61.29	61.29	61.29	0	0	0	20.43	0	0	0	20.43	0	0	0
Average.	306.45	306.45	61.29	0	143.01	81.72	163.44	0	0	61.29	102.15	0	0	0
	61.29	61.29	61.29	0.00	47.67	27.24	54.48	0	0	61.29	34.05	0	0	0