		L	ESSON PLAN		
Discipline: Mechanical Engineering Subject: Engineering Mathematics-I Sub code: Th-3			Semester: 1 <sup>st</sup> semester	Name of the Teaching Faculty : <b>Deepak Kumar Sahoo</b> Sadashiba Mohanta	
			No of days /week class allotted: <b>04/week</b>	Date:16/08/2024 to	
Month	Week	No of periods available	Theory	topics to be covered	
	1 <sup>st</sup>	01 P	Trigonometry:-Conce	ept of angles, Addition formulae	
	2 <sup>nd</sup>	04 P		Measurement of angles in degrees, grades and radians and their conversion. T-ratios of Allied angles(without proof)	
August	3 <sup>rd</sup>	04 P	application. product fo	T-ratios of Allied angles ,sum, difference formulae and their application. product formulae (Transformation of product to sum , difference and vice versa).	
	4 <sup>th</sup>	04 P	T-ratios of multiple angles ,sub multiple angles.( sin 2A,cos2A,tan2A,sin3A,cos3A, sin $\frac{A}{2}$ cos $\frac{A}{2}$ tan $\frac{A}{2}$ )		
	5 <sup>th</sup>	04 P	Graphs of $\sin x$ , $\cos x$ , $\tan x$ , and $e^x$ . Solve Example and problems.		
September	6 <sup>th</sup>	04 P	limits. Four standard li	$\lim_{x \to a} \left(\frac{a^{x}-1}{x}\right), \lim_{x \to a} (1+x)^{\frac{1}{x}},$ nition of	
	7 <sup>th</sup>	04 P	Monthly Test-01Differentiation of sum ,product and quotient of functions. Differentiation of function of a function . differentiation of trigonometric and inverse trigonometric function .		
	8 <sup>th</sup>	04 P		rithmic and exponential function.	
	9 <sup>th</sup>		PUJ	A HOLIDAYS	
October	10 <sup>th</sup>	04 P	complex number .	efinition , real and imaginary part of <b>NAL ASSESSMENT-01</b>	
ŏ	11 <sup>th</sup>	04 P	its conversion from on complex number. Mod	presentation of complex number and e form to other, conjugate of a ulus and amplitude of a complex subtraction of a complex number .	
	12 <sup>th</sup>	01 P		nly Test-02	

	1.0.1		
	13 <sup>th</sup>		Multiplication and division of a complex number .
L		01 P	De- movier's theorm its application.
	14 <sup>th</sup>	04 P	Solve example and problems of complex number. <b>Partial fraction:-</b> Definition of polynomial fraction proper and improper fractions and definition of partial fractions. To resolve proper fraction into partial fraction with denominator containing non repeated linear factor.
November	15 <sup>th</sup>	01 P	Repeated linear factors and irreducible non repeated quadratic factors. To resolve improper fraction into partial fraction .
4	16 <sup>th</sup>	04 P	Solve Example and problems. <b>Permutation and Combination :-</b> Value of P(n,r) and C(n,r).
	17 <sup>th</sup>	04 P	Monthly Test-03 Binomial Theorem:-Binomial theorem for positive integral index(expansion and general form).solve examples.
Der	18 <sup>th</sup>	04 P	<b>INTERNAL ASSESSMENT-02</b> Binomial theorem for any index (expansion without proof) first and second binomial approximation with applications to engineering problems.
December	19 <sup>th</sup>	04 P	Solve examples and problems. Revision all units
De	20 <sup>th</sup>	04 P	Revision &Previous year question & Answer discussion.
	21 <sup>st</sup>	01 P	
		V	ERY SIMILAR TEST/MOCK TEST

			LESSON PLAN		
Discipline: Electrical engineering Subject: Engineering Mathematics-I			Semester:Name of the Teaching1stsemesterFaculty :Deepak Kumar SahooSadashiba MohantaNo of days /weekSemester fromclassDate:16/08/2024 to		
Sub code: Th-3		allotted: <b>04/week</b>	<b>24/12/2024</b> No of weeks: <b>22</b>		
Month	onth Week No of periods available		Theory to	opics to be covered	
ust	1 <sup>st</sup>	02 P	Measurement of angles in	of angles, Addition formulae n degrees, grades and radians and s of Allied angles(without proof)	
August	2 <sup>nd</sup>	02 P	T-ratios of Allied angles ,sum, difference formulae and their application. product formulae (Transformation of product to sum , difference and vice versa).		
	4 <sup>th</sup>	04 P	T-ratios of multiple angles ,sub multiple angles.( sin 2A,cos2A,tan2A,sin3A,cos3A, sin $\frac{A}{2}$ cos $\frac{A}{2}$ tan $\frac{A}{2}$ )		
	5 <sup>th</sup>	04 P	Graphs of $\sin x$ , $\cos x$ , $\tan x$ , and $e^x$ . Solve Example and problems.		
September	6 <sup>th</sup>	02 P			
S	7 <sup>th</sup>	04 P	, Mor Differentiation of sum	nthly Test-01 product and quotient of on of function of a function . nometric and inverse	
	8 <sup>th</sup>	02 P	Differentiation of logarith	nmic and exponential function.	
	9 <sup>th</sup>	02 P	Solve all example and pr	oblems.	
October	10 <sup>th</sup>		PUJA	HOLIDAYS	
Octc	11 <sup>th</sup>	04 P		<b>AL ASSESSMENT-01</b> nition , real and imaginary part of	

	1 Oth		
	12 <sup>th</sup>		Polar and Cartesian representation of complex number and
		04 P	its conversion from one form to other, conjugate of a
		0.1	complex number. Modulus and amplitude of a complex
			number .
	13 <sup>th</sup>		Monthly Test-02
		04 P	Addition and subtraction of a complex number .
			Multiplication and division of a complex number.
	15 <sup>th</sup>		De- movier's theorm its application.Solve example and
		04 P	problems of complex number.
		011	Partial fraction:- Definition of polynomial fraction proper
	1.5.1		and improper fractions and definition of partial fractions.
	16 <sup>th</sup>	04 P	To resolve proper fraction into partial fraction with
er			denominator containing non repeated linear factor. Repeated linear factors and irreducible non repeated
qu			
November	17 <sup>th</sup>	04 P	quadratic factors.
VOI	17	04 F	To resolve improper fraction into partial fraction .
F-1			Solve Example and problems.
	18 <sup>th</sup>	04 P	Monthly Test-03
			Permutation and Combination :- Value of
			P(n,r) and C(n,r). Problems.
	19 <sup>th</sup>	04 P	INTERNAL ASSESSMENT-02
			Binomial Theorem:-Binomial theorem for positive integral
			index(expansion and general form).solve examples.
St.	20 <sup>th</sup>		Binomial theorem for any index (expansion without proof)
lbe		04 P	first and second binomial approximation with applications to
en			engineering problems.
December	21 <sup>th</sup>	04 P	Solve examples and problems. Revision all units
	22 <sup>th</sup>	04 P	Revision & Previous year question & Answer discussion.
			VERY SIMILAR TEST/MOCK TEST

			LESSON PLAN		
Discipline: <b>Metallurgical</b> engineering			Semester: 1 <sup>st</sup> semester	Name of the Teaching Faculty : Deepak Kumar Sahoo Sadashiba Mohanta	
Subject: Engineering Mathematics-I Sub code: Th-3			No of days /week class allotted: <b>04/week</b>	Semester from Date: <b>16/08/2024 to</b> <b>24/12/2024</b> No of weeks: <b>21</b>	
Month	Week	No of periods available	Theory to	pics to be covered	
	1 <sup>st</sup>	02 P	Trigonometry:-Concept	of angles, Addition formulae	
gust	2 <sup>nd</sup>	04 P	U U	Measurement of angles in degrees, grades and radians and their conversion. T-ratios of Allied angles(without proof)	
August	3 <sup>rd</sup>	04 P	T-ratios of Allied angles ,sum, difference formulae and their application. product formulae (Transformation of product to sum , difference and vice versa).		
	4 <sup>th</sup>	04 P	T-ratios of multiple angles ,sub multiple angles.( sin 2A,cos2A,tan2A,sin3A,cos3A, sin $\frac{A}{2}$ cos $\frac{A}{2}$ tan $\frac{A}{2}$ )		
	5 <sup>th</sup>	04 P	Graphs of sin $x$ , cos $x$ , tan $x$ , and $e^x$ . Solve Example and problems.		
September	6 <sup>th</sup>	04 P	<b>Differential calculus :-</b> limits. Four standard limiting $\lim_{x \to a} (1 + x)^{\frac{1}{x}}$ , differentiating $x^n$ , sin <i>x</i> , cos <i>x</i> , tan <i>x</i> , $x^n$ , limit and the standard limit of the standard limit of the standard limits.		
01	7 <sup>th</sup>	04 P	X   y sinx, cosx, tanx, x   yog x     Monthly Test-01     Differentiation of sum ,product and quotient of functions. Differentiation of function of a function .     differentiation of trigonometric and inverse trigonometric function .		
	8 <sup>th</sup>	03 P	Differentiation of logarithmic and exponential function. Solve all example and problems.		
	9 <sup>th</sup>		PUJA HOLIDAYS		
October	10 <sup>th</sup>	03 P	complex number .	nition , real and imaginary part of <b>AL ASSESSMENT-01</b>	
	11 <sup>th</sup>	04 P	its conversion from one fo	esentation of complex number and orm to other, conjugate of a as and amplitude of a complex	

12th02 PMonthly Test-02Addition and subtraction of a complex number .13th02 PMultiplication and division of a complex number .De- movier's theorm its application.	
Addition and subtraction of a complex number .   13 <sup>th</sup> OO D	
02 P De- movier's theorm its application.	
14th04 PSolve example and problems of complex number.Partial fraction:- Definition of polynomial fraction and improper fractions and definition of partial frac- resolve proper fraction into partial fraction with denominator containing non repeated linear factor.	ctions. To
Jo15th02 PRepeated linear factors and irreducible non repear quadratic factors. To resolve improper fraction in fraction .16th04 PSolve Example and problems.	
2 16 <sup>th</sup> 04 P Solve Example and problems.	
Permutation and Combination :- Value of	
P(n,r) and C(n,r).	
17 <sup>th</sup> 04 P Monthly Test-03	
Binomial Theorem:-Binomial theorem for positive index(expansion and general form).solve example	-
18th04 PINTERNAL ASSESSMENT-02Binomial theorem for any index (expansion withou first and second binomial approximation with appli- engineering problems.	
engineering problems. 29 <sup>th</sup> 04 P Solve examples and problems. Revision all units	
1 20 <sup>th</sup> 04 P Revision & Previous year question & Answ	er
21 <sup>th</sup> 01 P <b>discussion</b> .	
VERY SIMILAR TEST/MOCK TEST	

			LESSON PLAN	
Discipline: <b>Mining</b> engineering			Semester: 1 <sup>st</sup> semester	Name of the Teaching Faculty : Deepak Kumar Sahoo Sadashiba Mohanta
Subject: Engineering Mathematics-I Sub code: Th-3		No of days /week class allotted:04/weekSemester from Date:16/08/2024 to 24/12/2024 No of weeks:22		
Month	Month Week No of periods available		Theory to	pics to be covered
	1 <sup>st</sup>	01 P	Trigonometry:-Concept	of angles, Addition formulae
August	2 <sup>nd</sup>	03 P	Measurement of angles in degrees, grades and radians and their conversion. T-ratios of Allied angles(without proof)	
Aug	3 <sup>rd</sup>	03 P	T-ratios of Allied angles ,sum, difference formulae and their application. product formulae (Transformation of product to sum , difference and vice versa).	
	4 <sup>th</sup>	04 P	T-ratios of multiple angles ,sub multiple angles.( sin 2A,cos2A,tan2A,sin3A,cos3A, sin $\frac{A}{2}$ cos $\frac{A}{2}$ tan $\frac{A}{2}$ )	
	5 <sup>th</sup>	04 P	Graphs of $\sin x$ , $\cos x$ , tag problems.	n $x$ , and $e^x$ . Solve Example and
eptember	6 <sup>th</sup>	03 P	<b>Differential calculus :-</b> limits. Four standard limit $\lim_{x \to a} (1 + x)^{\frac{1}{x}}, \text{ differentiation}$ $x^{n}, \sin x, \cos x, \tan x, x^{n}, x^{n},$	
Se	7 <sup>th</sup>	04 P	Mor Differentiation of sum ,	nthly Test-01 product and quotient of on of function of a function . nometric and inverse
	8 <sup>th</sup>	01P		nmic and exponential function.
ber	9 <sup>th</sup>	01 P	Solve all example and pro	oblems.
October	10 <sup>th</sup>		PUJA	HOLIDAYS

	11th		Complex numbers Definition real or dimension
	11 <sup>th</sup>	02 P	<b>Complex number:-</b> Definition , real and imaginary part of complex number . INTERNAL ASSESSMENT-01
	12 <sup>th</sup>	04 P	Polar and Cartesian representation of complex number and its conversion from one form to other, conjugate of a complex number. Modulus and amplitude of a complex number .
	13 <sup>th</sup>	03 P	Monthly Test-02Addition and subtraction of a complex number .Multiplication and division of a complex number.
	14 <sup>th</sup>	01 P	De- movier's theorm its application.
	15 <sup>th</sup>	04 P	Solve example and problems of complex number. <b>Partial fraction:-</b> Definition of polynomial fraction proper and improper fractions and definition of partial fractions. To resolve proper fraction into partial fraction with denominator containing non repeated linear factor.
November	16 <sup>th</sup>	03 P	Repeated linear factors and irreducible non repeated quadratic factors. To resolve improper fraction into partial fraction.
Nove	17 <sup>th</sup>	04 P	Solve Example and problems. <b>Permutation and Combination :-</b> Value of P(n,r) and C(n,r).
	18 <sup>th</sup>	04 P	Monthly Test-03 Binomial Theorem:-Binomial theorem for positive integral index(expansion and general form).solve examples.
er	19 <sup>th</sup>	04 P	<b>INTERNAL ASSESSMENT-02</b> Binomial theorem for any index (expansion without proof) first and second binomial approximation with applications to engineering problems.
December	20 <sup>th</sup>	04 P	Solve examples and problems. Revision all units
Dec	21 <sup>th</sup>	04 P	Revision &Previous year question & Answer
	22 <sup>th</sup>	01P	discussion.
			VERY SIMILAR TEST/MOCK TEST

			LESSON PLAN		
Discipline: <b>Drilling and</b> <b>Mechanical</b>			Semester: 1 <sup>st</sup> semester	Name of the Teaching Faculty : Deepak Kumar Sahoo Sadashiba Mohanta	
Subject: Engineering Mathematics-I Sub code: Th-3			No of days /week class allotted: <b>04/week</b>	Semester from Date: <b>16/08/2024 to</b> <b>24/12/2024</b> No of weeks: <b>20</b>	
Month	Week	No of periods available	Theory to	pics to be covered	
	1 <sup>st</sup>	02 P	Trigonometry:-Concept	of angles, Addition formulae	
ust	2 <sup>nd</sup>	04 P	e e e e e e e e e e e e e e e e e e e	Measurement of angles in degrees, grades and radians and their conversion. T-ratios of Allied angles(without proof)	
August	3 <sup>rd</sup>	04 P	T-ratios of Allied angles ,sum, difference formulae and their application. product formulae (Transformation of product to sum , difference and vice versa).		
	4 <sup>th</sup>	02 P	T-ratios of multiple angles ,sub multiple angles.( sin 2A,cos2A,tan2A,sin3A,cos3A, sin $\frac{A}{2}$ cos $\frac{A}{2}$ tan $\frac{A}{2}$ )		
	5 <sup>th</sup>	04 P	Graphs of sin x, cos x, tan x, and $e^x$ . Solve Example and problems.		
September	6 <sup>th</sup>	04 P	<b>Differential calculus :-</b> limits. Four standard limiting $\lim_{x \to a} (1 + x)^{\frac{1}{x}}$ , differentiating $x^n$ , sin <i>x</i> , cos <i>x</i> , tan <i>x</i> , $x^n$ , limit and the standard limit of the standard limit of the standard limits.		
01	7 <sup>th</sup>	04 P	X , sinx, cosx, tanx, x , log x :Monthly Test-01Differentiation of sum ,product and quotient of functions. Differentiation of function of a function .differentiation of trigonometric and inverse trigonometric function .		
	8 <sup>th</sup>	03 P	Differentiation of logarith all example and problem	nmic and exponential function. Solve s.	
	9 <sup>th</sup>		PUJA	HOLIDAYS	
October	10 <sup>th</sup>	03 P	complex number .	nition , real and imaginary part of <b>AL ASSESSMENT-01</b>	
	11 <sup>th</sup>	04 P	its conversion from one fo complex number. Modulu	esentation of complex number and orm to other, conjugate of a as and amplitude of a complex btraction of a complex number .	

	12 <sup>th</sup>		Monthly Tost 02
	12	01 P	Monthly Test-02
	13 <sup>th</sup>	02 P	Multiplication and division of a complex number . De- movier's theorm its application.
	14 <sup>th</sup>	04 P	Solve example and problems of complex number. <b>Partial fraction:-</b> Definition of polynomial fraction proper and improper fractions and definition of partial fractions. To resolve proper fraction into partial fraction with denominator containing non repeated linear factor.
November	15 <sup>th</sup>	03 P	Repeated linear factors and irreducible non repeated quadratic factors. To resolve improper fraction into partial fraction .
No	16 <sup>th</sup>	04 P	Solve Example and problems. <b>Permutation and Combination :-</b> Value of P(n,r) and C(n,r).
	17 <sup>th</sup>	04 P	Monthly Test-03 Binomial Theorem:-Binomial theorem for positive integral index(expansion and general form).solve examples.
lber	18 <sup>th</sup>	04 P	<b>INTERNAL ASSESSMENT-02</b> Binomial theorem for any index (expansion without proof) first and second binomial approximation with applications to engineering problems.
December	29 <sup>th</sup>	04 P	Solve examples and problems. Revision all units
Γ	20 <sup>th</sup>	04 P	Revision &Previous year question & Answer discussion.
			VERY SIMILAR TEST/MOCK TEST