

(An Autonomous Institution)

B.E- Mechatronics Engineering

CURRICULUM and SYLLABI

[For students admitted in 2023-2024]

B.E / B.Tech Regulations 2023

Approved by BOS and Academic Council meetings

Sona College of Technology, Salem (An Autonomous Institution) Courses of Study for B.E/B.Tech. Semester I under Regulations 2023 (CBCS) Branch: Mechatronics Engineering

S.No	Course Code	Course Title	L	Т	P	J	С	Category	Total Contact Hours	Course Type*
	Course Para	Theory course	es							
1.	U23ENG101A	Communication Skills in English	2	0	2	0	3	HS	60	TL
2.	U23MAT102A	Linear Algebra and Calculus with MATLAB	3	0	2	0	4	BS	75	TL
3.	U23PHY103C	Physics for Engineers	3	0	0	0	3	BS	45	Т
4.	U23CHE104F	Engineering Chemistry	2	0	0	0	2	BS	30	Т
5.	U23PPR105	Problem Solving using Python Programming	3	0	0	0	3	ES	45	Т
6.	U23EGR107	Engineering Graphics	3	0	0	0	3	ES	45	Т
7.	U23TAM101	தமிழர் மரபு /Heritage of Tamils	1	0	0	0	1	HS	15	Т
8.	U23GE101	Basic Aptitude-I	2	0	0	0	0	AC	30	Т
	0	Practical cour	ses							
9.	U23PCL108	Physics and Chemistry Laboratory	0	0	2	0	1	BS	30	L
10.	U23PPL112	Python Programming Laboratory	0	0	2	0	1	ES	30	L
			T	otal	Cre	dits	21			
		Optional Language C	ours	es**						
11.	U23OL1101	French							15	Т
12.	U23OL1102	German						OI	15	Т
13.	U23OL1103	Japanese		0	0	0	1	OL	15	Т
14.	U23OL1104	J23OL1104 Korean							15	Т

*T- Theory, TT- Theory with Tutorial, TL- Theory with Laboratory, TP- Theory with Project, TLP- Theory with Laboratory and Project, L-Laboratory, LT- Laboratory with Theory, LP- Laboratory with Project

**Students may opt for foreign languages viz., German/French/Japanese/Korean with additional one credit (Not accounted for CGPA calculation)

Approved By

of for is	PSom mathings	Miralamer	J. Subnit	
Chairperson, Science and Humanities BoS	Chairperson, MCT BoS	Member Secretary, Academic Council	Dean-Academics	Chairperson, Academic Council & Principal
Dr.M.Renuga	Dr.P.Suresh	Dr.R.Shivakumar	Dr.J.Akilandeswari	Dr.S.R.R.Senthil Kumar

Copy to:-

HOD/ Mechatronics Engineering, First Semester B.E.MCT Students and Staff, COE

Sona College of Technology, Salem (An Autonomous Institution) Courses of Study for B.E/B.Tech. Semester II under Regulations 2023 (CBCS) Branch: Mechatronics Engineering

S.No	Course Code	Course Title	L	T	Р	J	С	Category	Total Contact Hours	Course Type*
		Theory courses	5					a 1. A		
1.	U23ENG201A	Technical English	2	0	0	0	2	HS	30	T
2.	U23MAT202C	Vector Calculus and Differential Equations	3	1	0	0	4	BS	60	TT
3.	U23PHY203G	Physics of Electronic Devices	2	0	0	0	2	BS	30	Т
4.	U23CHE204D	Materials Chemistry	3	0	0	0	3	BS	45	Т
5.	U23MC201	Engineering Mechanics-Statics and Dynamics	3	0	0	0	3	ES	45	Т
6.	U23MC202	Basic Electrical Engineering	3	0	0	0	3	ES	45	T
7.	U23TAM201	தமிழரும் தொழில்நட்பமும் / Tamils and Technology	1	0	0	0	1	HS	15	Т
8.	U23GE201	Basic Aptitude- II	2	0	0	0	0	AC	30	Т
		Practical course	es	L						
9.	U23WPL214	Workshop Practice	0	0	2	0	1	ES	30	L
10.	U23MC203	Basic Electrical Engineering and Devices Laboratory	0	0	4	0	2	ES	60	L
			1	Fota	l Cre	dits	21			
		Optional Language Co	ourse	s**						
11.	U23OL1201	French-II							15	T
12.	U23OL1202	German-II						OI	15	Т
13.	U23OL1203	Japanese-II	1	0	0	0	1		15	Т
14.	U23OL1204	Korean-II					20 F		15	Т

*T- Theory, TT- Theory with Tutorial, TL- Theory with Laboratory, TP- Theory with Project, TLP- Theory with Laboratory and Project, L-Laboratory, LT- Laboratory with Theory, LP- Laboratory with Project

**Students may opt for foreign languages viz., German/French/Japanese/Korean with additional one credit (Not accounted for CGPA calculation)

Approved By

n-hm	RECONTIN	nivekungu	T. Allan T	AB:8-
Chairperson, Science and Humanities BoS	Chairperson, Mechatronics BoS	Member Secretary, Academic Council	Dean-Academics	Chairperson, Academic Council & Principal
Dr.M.Renuga	Dr.P.Suresh	Dr.R.Shivakumar	Dr.J.Akilandeswari	Dr.S.R.R.Senthil Kumar

Copy to:-

HOD/ Mechatronics, Second Semester B.E. Mechatronics Students and Staff, COE

PRINCIPAL SONA COLLEGE OF TECHNOLOGY SALEM-636 005

Sona College of Technology, Salem (An Autonomous Institution) Courses of Study for B.E/B.Tech. Semester I under Regulations 2023 (CBCS) Branch: Mechatronics Engineering

S.No	Course Code	Course Title	L	Т	P	J	С	Category	Total Contact Hours	Course Type*
	Course Para	Theory course	es							
1.	U23ENG101A	Communication Skills in English	2	0	2	0	3	HS	60	TL
2.	U23MAT102A	Linear Algebra and Calculus with MATLAB	3	0	2	0	4	BS	75	TL
3.	U23PHY103C	Physics for Engineers	3	0	0	0	3	BS	45	Т
4.	U23CHE104F	Engineering Chemistry	2	0	0	0	2	BS	30	Т
5.	U23PPR105	Problem Solving using Python Programming	3	0	0	0	3	ES	45	Т
6.	U23EGR107	Engineering Graphics	3	0	0	0	3	ES	45	Т
7.	U23TAM101	தமிழர் மரபு /Heritage of Tamils	1	0	0	0	1	HS	15	Т
8.	U23GE101	Basic Aptitude-I	2	0	0	0	0	AC	30	Т
	0	Practical cour	ses							
9.	U23PCL108	Physics and Chemistry Laboratory	0	0	2	0	1	BS	30	L
10.	U23PPL112	Python Programming Laboratory	0	0	2	0	1	ES	30	L
			T	otal	Cre	dits	21			
		Optional Language C	ours	es**						
11.	U23OL1101	French							15	Т
12.	U23OL1102	German						OI	15	Т
13.	U23OL1103	Japanese		0	0	0	1	OL	15	Т
14.	U23OL1104	J23OL1104 Korean							15	Т

*T- Theory, TT- Theory with Tutorial, TL- Theory with Laboratory, TP- Theory with Project, TLP- Theory with Laboratory and Project, L-Laboratory, LT- Laboratory with Theory, LP- Laboratory with Project

**Students may opt for foreign languages viz., German/French/Japanese/Korean with additional one credit (Not accounted for CGPA calculation)

Approved By

of for is	PSom mathings	Miralamer	J. Subnit	
Chairperson, Science and Humanities BoS	Chairperson, MCT BoS	Member Secretary, Academic Council	Dean-Academics	Chairperson, Academic Council & Principal
Dr.M.Renuga	Dr.P.Suresh	Dr.R.Shivakumar	Dr.J.Akilandeswari	Dr.S.R.R.Senthil Kumar

Copy to:-

HOD/ Mechatronics Engineering, First Semester B.E.MCT Students and Staff, COE

		Communication Skills in English L T P J C												
U2	23ENC	3101A	(Con	nmon to	ADS,	AIML, BI	ME, CS	D, CSE,	CIVIL,	2	0	2	0	3
Cours	e Out	comes		LCL	, LLL	, wie i, i i	r, 11 Di	allelles)					0	
At the	end o	of the cou	rse, the	studer	t will	l be able	to							
CO1	: I	Use gramn	natical	compor	nents	effectivel	y in bo	th writte	en and	spoken	commu	nicatio	n	
CO2	2: I	Develop sp	eaking	skills f	or sel	f-introdu	ction, d	leliverir	ng spee	ches and	l techni	cal pres	sentatio	n
CO3	3: I	Demonstra	te effec	ctive list	tening	g skills for	r acade	mic and	l profes	sional p	urpose	s		
CO4	1: V	Write emai	ls and	formal	letters	and buil	ld resu	mes and	l constr	uct para	graphs			
CO5	;: I	Develop sp	eaking	, skills t	oth ir	n terms o	f fluenc	cy and c	omprel	nensibili	ty			
Pre-re	quisit	te:						-	-					
	• K	Knowledge	e and U	ndersta	anding	g of Gran	nmar	· · · · · · · · · · · · · · · · · · ·						
	• F	undamen	tal Lan	guage S	Skills ((LSRW)								
			<u>8.</u>	en gannen Referense		CO/PO,	PSO M	lapping			1 22 July -			
		(3/2	/1 indic	cates the	e strer	ngth of co	orrelatio	on) 3-Sti	rong, 2-	Mediun	n, 1-We	ak		
COs		Programme Outcomes (POs) and Programme Specific Outcomes (PSOs)												
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	P09	PO10	PO11	PO12	PSO1	PSO2
CO1	1	1	1	1	1	3	3	2	3	3	2	3	2	3
CO2	1	1	1	1	1	3	3	3	3	3	3	3	3	3
СОЗ	1	2	3	2	2	3	3	2	3	3	3	3	3	3
CO4	1	2	1	2	2	3	3	3	3	3	3	3	3	3
CO5	1	2	2	3	2	3	3	3	3	3	3	3	3	3
					Co	urse Ass	essmer	nt meth	ods					
	8			E	Direct							Indir	ect	
CIE tes	st I (10	0) (Theory)		T	Attendar	nce (5)							
CIE te	st II (1	0) (Theory	7)			Total CIE	E: 50 ma	arks	al allow too					
CIE te	st III (st IV (10) (Theor (10) (Practi	y) cal)			Semester	End E	xamina	tion (50)	Cou	irse end	l surve	y
Assign	nment	/seminar/(Quiz (5)		(SEE – 11 marks)	neory (2	25 mark	s + Lab	(25				
Unit 01	:		an a										6 Hour	
•	Gene	eral vocabi	ulary, F	arts of	Speed	h, Article	es		K	· · · · ·		-		
•	Emai	il, fixing a	an app	ointmer	nt, can	ncelling a	appoint	ments,	confere	ence det	ails, ho	otel acc	ommod	lation,

Paragraph writing – Describing – defining – providing examples or evidences

Jnit 02:			
			6 Hours
 Tenses, Sentence Patterns 			
Instructions			
 Letter Writing - calling for quotations, placing orders 			
Jnit 03:			6 Hours
 Prefixes and Suffixes 			
Cover letter and resume writing			
Jnit 04:			6 Hours
 Modal verbs, concord 			
• Checklist			
 Letter Writing - Business communication, complaints, re 	eplies to queries fro	om busine	ess customers
Jnit 05:			6 Hours
• If conditionals			1
 Letter Writing - inviting dignitaries, accepting and decli 	ining invitations		L
Lab component:			
1. Self-introduction, personal information, name, home	background, study	y details,	area of interest
hobbies, strengths and weaknesses, projects and paper pr	resentations, likes	and dislik	tes in food, travel
clothes, special features of home town.			
		es Purcha	ases. Training
2. Mini presentation - Office Arrangements, Facilities, Off	tice Functions, Sal	• 1	
 Mini presentation - Office Arrangements, Facilities, Off Recruitment, Advertising, Applying for financial assistant Listensing and antending about any statement. 	nce, applying for a	job.	
 Mini presentation - Office Arrangements, Facilities, Off Recruitment, Advertising, Applying for financial assistan Listening - understanding short conversations or monolo notes, etc. 	nce, applying for a ogues, taking down	job. phone m	essages, orders,
 Mini presentation - Office Arrangements, Facilities, Off Recruitment, Advertising, Applying for financial assistan Listening - understanding short conversations or monolo notes, etc. Listening - entering information in tabular form 	nce, applying for a ogues, taking down	job. phone m	essages, orders,
 Mini presentation - Office Arrangements, Facilities, Offi Recruitment, Advertising, Applying for financial assistan Listening - understanding short conversations or monolo notes, etc. Listening - entering information in tabular form Loud Reading 	nce, applying for a ogues, taking down	job. phone m	essages, orders,
 Mini presentation - Office Arrangements, Facilities, Off Recruitment, Advertising, Applying for financial assistan Listening - understanding short conversations or monolo notes, etc. Listening - entering information in tabular form Loud Reading 	be Functions, Sal	job. phone m	Hours: 60 Hrs
 Mini presentation - Office Arrangements, Facilities, Off Recruitment, Advertising, Applying for financial assistan Listening - understanding short conversations or monolo notes, etc. Listening - entering information in tabular form Loud Reading Theory: 30 Hrs Tutorial: Practical: 30 hours	ace Functions, Sale nce, applying for a ogues, taking down Project:	job. phone m	Hours: 60 Hrs
 Mini presentation - Office Arrangements, Facilities, Off Recruitment, Advertising, Applying for financial assistant Listening - understanding short conversations or monolonotes, etc. Listening - entering information in tabular form Loud Reading Theory: 30 Hrs Tutorial: Practical: 30 hours TEXT BOOKS	Project:	job. phone m Total	essages, orders, Hours: 60 Hrs
 Mini presentation - Office Arrangements, Facilities, Off Recruitment, Advertising, Applying for financial assistan Listening - understanding short conversations or monolo notes, etc. Listening - entering information in tabular form Loud Reading Theory: 30 Hrs Tutorial: Practical: 30 hours TEXT BOOKS 1. Technical English I & II, Dr. M. Renuga et al. Sonaversit	tice Functions, Sale nce, applying for a ogues, taking down - Project: ty, 2016	job. phone m Total	Hours: 60 Hrs
 Mini presentation - Office Arrangements, Facilities, Off Recruitment, Advertising, Applying for financial assistan Listening - understanding short conversations or monolo notes, etc. Listening - entering information in tabular form Loud Reading Theory: 30 Hrs Tutorial: Practical: 30 hours TEXT BOOKS 1. Technical English I & II, Dr. M. Renuga et al. Sonaversit 2. Extensive Reading	tree Functions, Sala nce, applying for a ogues, taking down - Project: ty, 2016	job. phone m Total	Hours: 60 Hrs
 Mini presentation - Office Arrangements, Facilities, Off Recruitment, Advertising, Applying for financial assistant Listening - understanding short conversations or monolonotes, etc. Listening - entering information in tabular form Loud Reading Theory: 30 Hrs Tutorial: Practical: 30 hours TEXT BOOKS Technical English I & II, Dr. M. Renuga et al. Sonaversit Extensive Reading She is Dancing Back to Life – A Short Story" The Store of Coords. She is Dancing Back to Life – A Short Story" The Store of Coords. She is Dancing Back to Life – A Short Story" The Store of Coords. She is Dancing Back to Life – A Short Story" The Store of Coords. She is Dancing Back to Life – A Short Story" The Store of Coords.	the Functions, Sala nce, applying for a ogues, taking down - Project: ty, 2016	job. phone m Total	Hours: 60 Hrs
 Mini presentation - Office Arrangements, Facilities, Off Recruitment, Advertising, Applying for financial assistan Listening - understanding short conversations or monolo notes, etc. Listening - entering information in tabular form Loud Reading Theory: 30 Hrs Tutorial: Practical: 30 hours TEXT BOOKS Technical English I & II, Dr. M. Renuga et al. Sonaversit Extensive Reading She is Dancing Back to Life – A Short Story" The Story of Google – Sara Gilbert, published 	the Functions, Sala nce, applying for a bogues, taking down - Project: ty, 2016	job. phone m Total	Hours: 60 Hrs
 Mini presentation - Office Arrangements, Facilities, Off Recruitment, Advertising, Applying for financial assistan Listening - understanding short conversations or monolo notes, etc. Listening - entering information in tabular form Loud Reading Theory: 30 Hrs Tutorial: Practical: 30 hours TEXT BOOKS Technical English I & II, Dr. M. Renuga et al. Sonaversit She is Dancing Back to Life – A Short Story" The Story of Google – Sara Gilbert, published The Story of Amazon.com- Sara Gilbert, published 	tice Functions, Sala nce, applying for a ogues, taking down 	job. phone m Total	Hours: 60 Hrs
 Mini presentation - Office Arrangements, Facilities, Off Recruitment, Advertising, Applying for financial assistan Listening - understanding short conversations or monolo notes, etc. Listening - entering information in tabular form Loud Reading Theory: 30 Hrs Tutorial: Practical: 30 hours TEXT BOOKS Technical English I & II, Dr. M. Renuga et al. Sonaversit Extensive Reading She is Dancing Back to Life – A Short Story" The Story of Google – Sara Gilbert, published The Story of Amazon.com- Sara Gilbert, publi 	 Functions, Salance, applying for a bigues, taking down Project: ty, 2016 d by Jaico lished by Jaico 	job. phone m Total	Hours: 60 Hrs
 Mini presentation - Office Arrangements, Facilities, Off Recruitment, Advertising, Applying for financial assistan Listening - understanding short conversations or monolo notes, etc. Listening - entering information in tabular form Loud Reading Theory: 30 Hrs Tutorial: Practical: 30 hours TEXT BOOKS Technical English I & II, Dr. M. Renuga et al. Sonaversit Extensive Reading She is Dancing Back to Life – A Short Story" The Story of Google – Sara Gilbert, published The Story of Amazon.com- Sara Gilbert, publi REFERENCES Norman Whitby, Business Benchmark – Pre-Intermediate 	 Project: ty, 2016 d by Jaico lished by Jaico e to Intermediate, for the second se	Total Students	Hours: 60 Hrs Book, Cambridge
 Mini presentation - Office Arrangements, Facilities, Off Recruitment, Advertising, Applying for financial assistan Listening - understanding short conversations or monolo notes, etc. Listening - entering information in tabular form Loud Reading Theory: 30 Hrs Tutorial: Practical: 30 hours TEXT BOOKS Technical English I & II, Dr. M. Renuga et al. Sonaversit She is Dancing Back to Life – A Short Story" The Story of Google – Sara Gilbert, published The Story of Amazon.com- Sara Gilbert, publi REFERENCES Norman Whitby, Business Benchmark – Pre-Intermediate University Press, 2006. 	 Functions, Salance, applying for a bigues, taking down Project: ty, 2016 d by Jaico lished by Jaico ie to Intermediate, in the second s	Total Students	Hours: 60 Hrs Book, Cambridge
 Mini presentation - Office Arrangements, Facilities, Off Recruitment, Advertising, Applying for financial assistan Listening - understanding short conversations or monolo notes, etc. Listening - entering information in tabular form Loud Reading Theory: 30 Hrs Tutorial: Practical: 30 hours TEXT BOOKS Technical English I & II, Dr. M. Renuga et al. Sonaversit Extensive Reading She is Dancing Back to Life – A Short Story" The Story of Google – Sara Gilbert, published The Story of Amazon.com- Sara Gilbert, published The Story of Amazon.com- Sara Gilbert, publi REFERENCES Norman Whitby, Business Benchmark – Pre-Intermediate University Press, 2006. A Course in Communication Skills, P. Kiranmai Dutt, Generation (State) She is Communication Skills, P. Kiranmai Dutt, Generation (State) Litte State) The Story of State) State) State) The Story of State) The Story of Amazon.com (State) The State) The State)	 Functions, Salance, applying for a bigues, taking down Project: ty, 2016 d by Jaico lished by Jaico ie to Intermediate, setha Rajeevan, C. 	Total Students L. N. Pra	Hours: 60 Hrs Book, Cambridge
 Mini presentation - Office Arrangements, Facilities, Offi Recruitment, Advertising, Applying for financial assistan Listening - understanding short conversations or monolo notes, etc. Listening - entering information in tabular form Loud Reading Theory: 30 Hrs Tutorial: Practical: 30 hours TEXT BOOKS Technical English I & II, Dr. M. Renuga et al. Sonaversit Extensive Reading She is Dancing Back to Life – A Short Story" The Story of Google – Sara Gilbert, published The Story of Amazon.com- Sara Gilbert, published The Story of Senchmark – Pre-Intermediate University Press, 2006. A Course in Communication Skills, P. Kiranmai Dutt, Geby Cambridge University Press India Pvt. Ltd. Desting Total Press India Pvt. Ltd. Desting Press Press	 Functions, Salance, applying for a bigues, taking down Project: ty, 2016 d by Jaico lished by Jaico e to Intermediate, feetha Rajeevan, C. 	Total Students L. N. Pra	essages, orders, Hours: 60 Hrs Book, Cambridge akash, published
 Mini presentation - Office Arrangements, Facilities, Offi Recruitment, Advertising, Applying for financial assistan Listening - understanding short conversations or monolo notes, etc. Listening - entering information in tabular form Loud Reading Theory: 30 Hrs Tutorial: Practical: 30 hours TEXT BOOKS Technical English I & II, Dr. M. Renuga et al. Sonaversit Extensive Reading She is Dancing Back to Life – A Short Story" The Story of Google – Sara Gilbert, published The Story of Amazon.com- Sara Gilbert, publi REFERENCES Norman Whitby, Business Benchmark – Pre-Intermediate University Press, 2006. A Course in Communication Skills, P. Kiranmai Dutt, Ge by Cambridge University Press India Pvt. Ltd. 	 Functions, Salance, applying for a bigues, taking down Project: ty, 2016 d by Jaico lished by Jaico te to Intermediate, for the second second	Total Students L. N. Pra	Hours: 60 Hrs Book, Cambridge akash, published
 Mini presentation - Office Arrangements, Facilities, Off Recruitment, Advertising, Applying for financial assistar Listening - understanding short conversations or monolo notes, etc. Listening - entering information in tabular form Loud Reading Theory: 30 Hrs Tutorial: Practical: 30 hours TEXT BOOKS Technical English I & II, Dr. M. Renuga et al. Sonaversit Extensive Reading She is Dancing Back to Life – A Short Story" The Story of Google – Sara Gilbert, published The Story of Amazon.com- Sara Gilbert, publi REFERENCES Norman Whitby, Business Benchmark – Pre-Intermediate University Press, 2006. A Course in Communication Skills, P. Kiranmai Dutt, Geby Cambridge University Press India Pvt. Ltd. 	 Project: Project: ty, 2016 d by Jaico lished by Jaico e to Intermediate, feetha Rajeevan, C. 	Total Students I L. N. Pra	Hours: 60 Hrs Book, Cambridge akash, published
 Mini presentation - Office Arrangements, Facilities, Off Recruitment, Advertising, Applying for financial assistar Listening - understanding short conversations or monolo notes, etc. Listening - entering information in tabular form Loud Reading Theory: 30 Hrs Tutorial: Practical: 30 hours TEXT BOOKS Technical English I & II, Dr. M. Renuga et al. Sonaversit Extensive Reading She is Dancing Back to Life – A Short Story" The Story of Google – Sara Gilbert, published The Story of Amazon.com- Sara Gilbert, published The Story of Amazon.com- Sara Gilbert, published A Course in Communication Skills, P. Kiranmai Dutt, Ge by Cambridge University Press India Pvt. Ltd. 	 Functions, Salance, applying for a bigues, taking down Project: ty, 2016 d by Jaico lished by Jaico ie to Intermediate, setha Rajeevan, C. 	Total Students L. N. Pra	Hours: 60 Hrs Book, Cambridge akash, published
 Mini presentation - Office Arrangements, Facilities, Off Recruitment, Advertising, Applying for financial assistar Listening - understanding short conversations or monolo notes, etc. Listening - entering information in tabular form Loud Reading Theory: 30 Hrs Tutorial: Practical: 30 hours TEXT BOOKS Technical English I & II, Dr. M. Renuga et al. Sonaversit Extensive Reading She is Dancing Back to Life – A Short Story" The Story of Google – Sara Gilbert, published The Story of Amazon.com- Sara Gilbert, publi REFERENCES Norman Whitby, Business Benchmark – Pre-Intermediate University Press, 2006. A Course in Communication Skills, P. Kiranmai Dutt, Geby Cambridge University Press India Pvt. Ltd. State Story Press India Pvt. Ltd. 	 Functions, Salance, applying for a bigues, taking down Project: ty, 2016 d by Jaico d by Jaico lished by Jaico e to Intermediate, for a bigues, taking down 	Total Total Students L. N. Pra	Hours: 60 Hrs Book, Cambridge akash, published
 Mini presentation - Office Arrangements, Facilities, Off Recruitment, Advertising, Applying for financial assistar Listening - understanding short conversations or monolo notes, etc. Listening - entering information in tabular form Loud Reading Theory: 30 Hrs Tutorial: Practical: 30 hours TEXT BOOKS Technical English I & II, Dr. M. Renuga et al. Sonaversit Extensive Reading She is Dancing Back to Life – A Short Story" The Story of Google – Sara Gilbert, published The Story of Amazon.com- Sara Gilbert, publi REFERENCES Norman Whitby, Business Benchmark – Pre-Intermediate University Press, 2006. A Course in Communication Skills, P. Kiranmai Dutt, Ge by Cambridge University Press India Pvt. Ltd. 	 Functions, Salance, applying for a bogues, taking down Project: ty, 2016 d by Jaico lished by Jaico e to Intermediate, for the second s	Total Total Students I L. N. Pra Dr. M Profe	Hours: 60 Hrs Book, Cambridge akash, published
 Mini presentation - Office Arrangements, Facilities, Off Recruitment, Advertising, Applying for financial assistar Listening - understanding short conversations or monolo notes, etc. Listening - entering information in tabular form Loud Reading Theory: 30 Hrs Tutorial: Practical: 30 hours TEXT BOOKS Technical English I & II, Dr. M. Renuga et al. Sonaversit Extensive Reading She is Dancing Back to Life – A Short Story" The Story of Google – Sara Gilbert, published The Story of Amazon.com- Sara Gilbert, published The Story of Amazon.com- Sara Gilbert, published A Course in Communication Skills, P. Kiranmai Dutt, Ge by Cambridge University Press India Pvt. Ltd. 	Project: ty, 2016 d by Jaico lished by Jaico te to Intermediate, fill eetha Rajeevan, C.	Total Total Students I L. N. Pra	Hours: 60 Hrs Hours: 60 Hrs Book, Cambridge akash, published HOD I.RENUGA ssor & Head, lumanities & Lar

B.E / B. Tech Regulations 2023

Sona College of Technology

Department of Mathematics

				B, 1	E. / ME	СНАТ	RONIC	CS ENG	GINEE	RING					
SEM	ESTE	R-I	I INF		CEDDA		CALCU	TICN			L	T	P J		С
U23M	AT102	A	LINE		GEDKA	AND	LALCU	LUSW		ATLAB	3	0	2 0	,	4
Cours	e Outc	omes									1	- I I -			
At the	end of	the cou	irse, the	student	will be	able to									
C01	: find	d the ran	k of the	matrix a	nd solve	linear s	ystem o	fequatio	ons by di	irect and i	ndirect r	nethods			
CO2	: app	oly the co	oncepts o	of vector	spaces a	and linea	ar transf	ormation	ns in rea	l world ap	plication	ıs			
CO3	apr ma	oly the co trix.	oncepts c	of eigenv	alues ar	d eigen	vectors of	of a real	matríx a	and their p	propertie	s to dia	gonaliza	e the	e
CO4	: fine	d the Tay	ylor's sei	ies expa	nsion, J	acobians	and the	maxim	a and mi	inima of f	unctions	of two	variabl	es	
C05	apply the appropriate techniques of multiple integrals to find the area and volume.														
Pre-re	quisite	s:													
•	Funda Funda	amentals	s of elem	entary al lus	gebra		1	• F	undame	ntals of ge ntals of tri	eometry igonome	try			
						CO/PC), PSO	Mappin	g			-			
			(3/2/1 i	ndicates	the stre	ngth of	correlati	on) 3-St	rong, 2-	Medium,	1-Weak				
COs			Ртс	gramme	Outcor	nes (PO	s) and P	rogramn	ne Speci	fic Outco	mes (PS	Os)		367	
003	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	P09	PO10	PO11	PO12	PSO		PSO2
CO1	3	3		3	2						3	2	3		3
CO2	3	3	10.00	3	2			and of	1		3	2	3		3
CO3	3	3	- Television	3	2					18	3	2	3		3
CO4	3	3		3	2	- ² 2				an di san Ngan	3	2	3		3
CO5	3	3		3	2	- 41 - 11	- 3				3	2	3		3
			Co	urse ass	essmen	t metho	ds [The	ory with	1 labora	tory cou	rse]	1			
Star (25				Di	rect	50) 			199 - 1999 - 199 - 1999 -		1	ndirec	t		294
CIE tes CIE tes CIE tes CIE tes Attend	st I (10) st II (10 st III (10 st III (11 st IV (11 ance (5 ment/Q) (Theor)) (Theor 0) (Theor 0) (Prac 5))uiz/Sen	y) ry) ory) tical) ninar (5)		Total Seme [SEE	CIE: 50 ster End - Theory) marks I Examin 7 (35) +	nation (5 Lab(15)	i0) marks]		Cours	e end s	urvey		
Unit 01	LIN	EARS	YSTEM	OF EQ	UATIO	NS				1			9 H	our	s
Rank o Jacobi	of a ma and Ga	trix – so uss-Seid	olution of lel metho	f linear s	ystem o	f equati	ons by r	natrix m	nethod, (Gauss elir	nination	Gauss	-Jordan	, G	auss-
Unit 02	VE	CTORS	PACES										9 H	our	'S
Vector matrix	space associa	- linear	indepen a linear	dence an map – ra	d deper	dence o kernel	of vector of a line	s – basi ar map.	s – dim	ension – 1	inear tra	insform	ations (ma	ps) –
Unit 03	EIG	ENVA	LUES A	ND EIG	ENVE	CTORS					•		9 H	our	s
Eigenv – diago	alues a onalizat	and eiger	vectors eal symm	of real m etric ma	natrices - trices.	– proper	ties of e	eigenvalu	ies and	eigenvect	ors – Ca	yley-Ha	milton	the	orem

BoS Date: 08. 07. 2023

B.E / B.Tech Regulations 2023

Unit 04	MULTIVARIA	ABLE CALCULUS		I C		9 Hours						
Functi	ons of several varia	bles - partial different	iation - total derivative -	– Jacobians – Taylor	's theorem	for functions of						
two va	riables – maxima a by Lagrange's me	and minima of funct	ions of two variables v	without constraints -	- constrain	ied maxima and						
Unit 05	MILTIPLE	NTECRALS	manupitors.			0 Hours						
Double	integrals - chang	e of order of integration	on - change of variables	s from Cartesian to r	olar coor	dinates - area as						
double	integrals in Cartes	ian coordinates - triple	e integrals – volume as tr	iple integrals in Carte	esian coor	dinates.						
		a - 1										
	• •	List	t of MATLAB Progra	ims								
1.	Programs based	on elementary operat	tions on matrices		1 P							
2.	2. Computing the rank of a matrix											
3.	Finding eigenvalues and eigenvectors of a matrix											
4.	Finding partial derivatives of functions of several variables											
5.	Computing stationary points of functions of two variables											
6.	5. Taylors series expansion of functions of two variables											
7.	7. Evaluating double integrals											
8.	Finding area as d	louble integrals		ле. А	ļ							
9.	Evaluating triple	integrals										
10.	Finding volume	as triple integrals										
Theor	y: 45 Hrs 7	'utorial: -	Practical: 30 Hrs	Project:	Total Ho	ours: 75 Hrs						
TEXT	BOOKS:			1	÷							
1.	T. Veerarajan, "Li	inear Algebra and Part	ial Differential Equation	s", McGraw Hill Pub	lishers, 1st	Edition, 2018.						
2.	2. T. Veerarajan, "Engineering Mathematics for Semesters I & II", McGraw Hill Publishers, 1st Edition, 2019.											
3.	 W. Yang, Y. K. Choi, K. Jaekwon, M. C. Kim, H. J. Kim and T. Im, "Engineering Mathematics with MATLAB", CRC Press Publishers, 1st Edition, 2017. 											
REFE	EFERENCE BOOKS:											
1.	S. Lipschutz and I	M. L. Lipson, "Linear	Algebra", McGraw Hill	Publishers, 6th Edition	n, 2018.							
2.	E. Kreyszig, "Adv	vanced Engineering Ma	athematics", Wiley Publi	ishers, 10 th Edition, R	eprint, 20	17.						
3.	C. Prasad and R.	Garg, "Advanced Engi	neering Mathematics", K	Khanna Publishers, 1 ^s	Edition, 2	2018.						
4.	B. V. Ramana, "H	ligher Engineering Ma	thematics", McGraw Hil	l Publishers, 29th Rep	orint, 2017							
5.	5. B. S. Grewal, "Higher Engineering Mathematics", Khanna Publishers, 44 th Edition, 2018.											
6	6 D. Xu "Calculus problem solutions with MATLAB" Walter de Gruyter Publishers 1 st Edition 2020											

the

Dr. S. JAYABHARATHI Head / Department of Mathematics Sona College of Technology Salem - 636 005

BoS Date: 08. 07. 2023

Dr. S. JAYABHARATHI ASSOCIATE PROFESSOR & HEAD DEPARTMENT OF MATHEMATICS, SONA COLLEGE OF TECHNOLOGY, SALEM-636 005. Tamilnadu. Ph: 0427 - 4099999.

Dr. M. RENUGA BoS - Chairperson Science and Humanities Sona College of Technology Salem – 636 005

DB:EWB.Tech Regulations 2023 Professor & Head, Department of Humanities & Languages, Sona College of Technology, SALEM - 636 000.

			1											
U	U23PHY103C PHYSICS FOR ENGINEERS							L	T	Р	J	C		
										3	0	0	0	3
Cours	se Ou	tcomes												
At the	e end	of the cou	rse, the	studer	nt will	be able	to							
CO	1:	Analyse the	e relati	on betw	een ar	rangeme	ent of at	coms and	d mater	rial prop	erties.			
CO	2:	Discuss the	e dual r	ature of	f matte	er and rad	diation	and the	applica	ation of	wave na	ature of	particl	es.
CO	3:	Describe th	e basic	compo	onents	of lasers								
CO	4:	Distinguish	the ty	pes of n	nagnet	tic materi	ials.				1		×	
CO	5:	Elucidate tl	he diffe	erent mo	odes o	f heat tra	nsfer.							
Pre-re	quisi	te:												
	1	Basic know	vledge	e in ato	mic p	hysics a	nd opt	ics.						
		an an an ann an an an an an an an an an				CO/PO,	PSO M	lapping	;	900			18	100
		(3/2/	/1 indic	cates the	e stren	igth of co	orrelatio	on) 3-Sti	rong, 2-	Mediun	n, 1-We	ak	and an	
COs	Programme Outcomes (POs) and Programme Specific Outcomes (PSOs)													
	PO	1 PO2	PO3	PO4	PO5	PO6	PO7	PO8	P09	PO10	PO11	PO12	PSO1	PSO2
CO1	3	2	-3		-	2	2	15 ×	- -	2	2	2	-	3
CO2	3	2			- 6	2	2	-		2	2	2	-	3
CO3	3	2		-	-	2	2	-	-	2	2	2		3
CO4	3	2	-	-	-	2	2	10 martin - 		2	2	2		3
CO5	3	2		-		2	2		<i>.</i> [-	2	2	2	-	3
					Co	urse Ass	essmer	t meth	ods		1			
e der	Alexandre	18 A.	. 4° 1.3	D	Direct				4 . M			Indir	ect	
CIE te CIE te CIE te Assign	est I (8 est II (est III nmen) 8) (8) t/Seminar/(Quiz (5)		Objective Attendan Total CIE Semester	es Test nce (5) E: 40 ma End E:	(6) arks xaminal	tion (60)	Cou	rse Enc	l Surve	y
Unit 01	: CR	YSTAL PH	IYSIC	S									9 Hour	s
Impor	tance	of crystals	- Type	es of cr	ystals	- Basic d	lefinitio	ons in c	rystallo	graphy	(Lattice	-space	lattice	- unit
cell -	lattice	e parameter	rs - bas	sis) - S	even	crystal sy	ystems	and fou	irteen H	Bravais	lattices	- Lattic	e plane	s and
Miller	indic	es - Interpl	anar di	stance -	- d spa	icing in c	ubic la	ttice - C	alculat	ion of n	umber o	of atoms	s per un	it cell
- Ator	nic ra	dius - Coor	dinatio	on numb	per and	d Atomic	Packir	ng Facto	or for S	C, BCC	, FCC a	nd HCI	P Struct	ures -

4.8.2023 Version I.0 Programme:

B.E / B.. Tech Regulations 2023

Polymorphism and allotropy - Crystal imperfections - Point, line and surface defects - Burger vector.

Unit 02: QUANTUM PHYSICS 9 Hours Limitations of classical theory Dual nature of matter radiation and Particle nature of radiation - Compton effect - Expression for Compton shift (no derivation) - Wave nature of matter - de Broglie waves - Heisenberg's Uncertainty principle -Schrödinger's time independent and time dependent wave equations - Physical significance of wave function - Energy and wave function of an electron trapped in one dimensional box - Application of wave nature of particles - Electron microscope -Comparison of optical and electron microscope - Scanning electron microscope - Limitations of electron microscope.

Unit 03: LASERS

9 Hours

Energy level - normal population - Stimulated absorption - population inversion - meta stable state - spontaneous emission - stimulated emission - Basic components of a laser - Einstein's theory of spontaneous and stimulated emission of radiation - Types of lasers - Solid state laser - Nd:YAG laser - Gas laser - CO_2 laser - Semiconductor laser - Homojunction and hetero junction laser - Holography - Construction and reconstruction of hologram - Application of laser in industry – Cutting, welding and drilling – Medical applications – Lasik.

Unit 04: MAGNETIC MATERIALS

9 Hours

9 Hours

Basic definitions - Magnetic moment - Magnetic field - Magnetic field intensity - Magnetic permeability - Magnetization - Intensity of magnetization - Magnetic susceptibility - Types of magnetic materials - Dia , Para and Ferromagnetic materials - Domain theory of ferromagnetism - Origin of domains - Antiferromagnetic materials - Ferrites - Structure, properties and applications - Hysteresis - Hard and soft magnetic materials.

Unit 05: THERMAL PHYSICS

Heat and temperature - Modes of heat transfer - Conduction, convection and radiation - Specific heat capacity - Thermal capacity and coefficient of linear thermal expansion - Thermal conductivity - Measurement of thermal conductivity of a good conductor - Forbe's method - Measurement of thermal conductor - Lee's disc method - Radial flow of heat - Cylindrical flow of heat - Practical applications of conduction of heat - Thermal radiations - Properties and applications of thermal radiations.

Т	heory: 45 Hrs	Tutorial:	Practical:	Project:	Total Hours: 45 Hrs						
TEXT BOOKS											
1.	1. M.N. Avadhanulu, P.G. Kshirsagar, "A Textbook of Engineering Physics", S.Chand & Company Ltd, New Delhi 2014.										
2.	2. D. K. Bhattacharya, Poonam Tandon "Engineering Physics", Oxford University Press 2017.										

REFE	RENCES
1.	"Engineering Physics", Sonaversity, Sona College of Technology, Salem, Revised Edition 2018.
2.	B. K. Pandey and S. Chaturvedi, "Engineering Physics", Cengage Learning India Pvt. Ltd., Delhi, 2021.
3.	Arthur Beiser, Shobhit Mahajan, S. Rai Choudhury, "Concepts of Modern Physics", McGraw-Hill (Indian Edition), 2017.
4.	R. Murugeshan, Kiruthiga Sivaprasath, "Thermal Physics", S.Chand & Company Ltd, New Delhi 2018.
5.	R.Wolfson, "Essential University Physics", Volume 1 & 2. Pearson Education (Indian Edition), 2009.

Cout

Dr. C. SHANTHI, M.Sc., M.E., Ph.D., Professor of Physics Head, Department of Sciences Sona College of Technology (Autonomous) SALEM-636 005.

Dr. M. RENUGA, Professor & Head, Department of Humanities & Languages Sona College of Technology, SALEM - 636 005.

4.8.2023 Version 1.0

Programme:

B.E / B. Tech Regulations 2023

. 11	2301	HF10	4F		ENI	CINE	RINC	HEMI	STRV		L	T	P	J	C
	2001	ILIU	/11			GIIVE			JINI		2	0	0	0	2
Cour	se Oı	utcor	nes		ы 										
At th	e enc	l of t	the cou	rse, the	studen	t will	be able	to							
CO	1:	Ana for	alyse th industr	ne impu rial uses	urities o 5.	f wate	er, their	remova	al metho	ods and	l explai	n the co	ondition	ning me	ethods
СО	2:	Out	line the	e princi	ples and	d appl	ications	of elect	rochem	istry to	engine	ering an	id techi	nology.	
СО	3:	Ana	alyse th	e types	of corr	osion	and desc	ribe the	e metho	ds of c	orrosion	control	1.		
CO	4:	Dise tech	cuss th	e princ	ciple an	d app	lications	s of sur	face ch	emistr	y and c	atalysis	in eng	ineerin	g and
CO	5:	Des eng	cribe th ineerin	ne basic g and t	s of nar echnolo	no che gy.	mistry, s	ynthesi	is, prop	erties a	nd appl	ications	of nan	o mater	ials in
Pre-re	equis	site:	Basic k	nowled	ge on tl	ne con	cepts of	organic	, inorga	nic and	d physic	al chem	istry.		
				a de la composición d			CO/PO,	PSO M	lapping	5			1.200 ·	- 	
		Sint.	(3/2	/1 indic	cates the	e stren	gth of co	orrelatio	on) 3-Sti	rong, 2-	-Mediur	n, 1-We	ak		
COs]	Program	nme Oi	itcom	es (POs)	and Pro	ogramn	ne Spec	ific Out	comes (PSOs)		<u>.</u>
	PC)1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	P09	PO10	PO11	PO12	PSO1	$\frac{PSO2}{2}$
CO1	3		2	5				3							-
CO2	3		2	3000											2
СОЗ	3		2	•				2							2
CO4	3	2012	2												2
CO5	3		2	- 57				1			-				2
						Co	urse Ass	essmer	nt meth	ods					
		202.54 			E	Direct							Indir	ect	
CIE to CIE to CIE to Assig	est I (est II est III nme	8) (8) [(8) nt/se	minar/	Quiz (5)		Objective Attendar Total CII Semester	es Test nce (5) E: 40 m r End E	(6) arks xamina	tion (60	ŋ	Cou	irse end	d survey	Ŷ
Unit 0	1: W	ATE	R TEC	CHNOI	LOGY					1 14				6 Hour	s
Intro estim condi demin	duction ation tionii neral	on - - Bo ng (o izatio	Charae oiler fe colloida on proc	cteristic ed wat al, phos cess, de	cs – har er – ree phate, o salinatio	dness quiren calgon on of b	– estim nents – o and car prackish	ation disadva bonate water b	of hardi intages conditi oy rever	ness by of usin oning i se osm	v EDTA ng hard methods osis.	metho water s) – ext	d, alka in boile ernal c	linity a ers – in ondition	nd its ternal ning –
Unit 0	2: EL	ECT	FROC	HEMIS	STRY									6 Hour	S
Electi	rode	pote	ential -	Nerns	t Equa	tion -	derivat	ion and	d probl	ems b	ased on	single	electro	ode pot	tential
	4.8	202	3 Vers	tion I.O		Prograt	nme:			B	E/B.Te	ch Regu	lations 2	023	

calculation - reference electrodes – definition and examples only – Ion selective electrode - glass electrode - measurement of pH – electrochemical series – significance – electrolytic and electrochemical cells – reversible and irreversible cells –potentiometric titration (redox – Fe2+ vs dichromate) – conductometric titration (acid-base – HCl vs NaOH).

Unit 03: CORROSION AND CORROSION CONTROL

Chemical corrosion - Pilling-Bedworth rule – electrochemical corrosion – mechanism - galvanic corrosion – differential aeration corrosion – factors influencing corrosion – corrosion control – sacrificial anode and impressed cathodic current methods – corrosion inhibitors – protective coatings – Paints - constituents and their functions.

Unit 04: SURFACE CHEMISTRY AND CATALYSIS

Adsorption-types-physical and chemical adsorption – adsorption of gases on solids-adsorption isotherms-Freundlich and Langmuir isotherms-adsorption of solutes from solution – applications of adsorption-role of adsorption in catalytic reactions – granular activated carbon in pollution abatement – catalysis - types homogeneous and heterogeneous catalysis.

Unit 05: NANOCHEMISTRY

Basics - distinction between molecules, nanoparticles and bulk materials – size-dependent properties – nanoparticles: nano cluster, nano rod, nanotube (CNT) and nanowire – Synthesis: precipitation – hydrothermal – solvothermal – chemical vapour deposition - sol-gel technique – properties and applications of nano materials.

T	heory: 30 Hrs	Tutorial:	Practical:	Project:	Total Hours: 30 Hrs
TEXT	BOOKS				
1.	P.C.Jain and Mon Edition).	ica Jain, "Engine	ering Chemistry"	Dhanpat Rai Pub	, Co., New Delhi, 2018 (17th
2.	Wiley Editorial B Delhi, Reprint 201	oard <i>, "</i> Wiley En 9.	gineering Chemi	stry", 2nd Edition	, Wiley India Pvt.Ltd, New
REFE	RENCES				
1.	H.K. Chopra, A. F 2016.	Parmer, "Chemist	ry for Engineers",	Narosa Publishin	g House, New Delhi, 110002,
2.	Kannan P., Ravik Pvt. Ltd., Chennai	rishnan A., "Engi , 2009.	neering Chemistr	ry", Sri Krishna Hi	i-tech Publishing Company
3.	B. Sivasankar "En	gineering Chemis	try" Tata McGrav	v-Hill Pub.Co.Ltd,	New Delhi, 2008.
4.	Ozin G. A. and RSC Publishing, 2	Arsenault A. C., 005.	"Nanochemistry	: A Chemical Ap	proach to Nanomaterials",
				τ.	e de la companya de l

Programme:

Dr.C.SHANTHI, M.Sc., M.E., Ph.D., Professor of Physics Head, Department of Sciences Sona College of Technology (Autonomic SALEM-636, 005

Dr. M.RENUGA, Professor & Head, Department of Humanities & Languages, Sona College of Technology, SALEM - 636 000.

B.E / B. Tech Regulations 2023

6 Hours

6 Hours

6 Hours

			PHY	SICS A	ND CI	HEMIS	STRY I	LABOR	ATOR	Y L	T	P	J	C
	U 23PC	L108		(Fo	r Mech	atronic	es Engi	neering	;)	0	0	2	0	1
Cou	rse Ou	tcomes	1							I				1
At th	e end	of the cou	rse, the	studen	t will b	oe able	to					10 N		8
CC	1:	Determine	the pro	perties	of mate	erials by	v applyi	ng the p	orinciple	es of op	tics and	therma	l Physi	CS.
CC)2:	Identify ha	rdness	and sug	gest the	e quality	y of wa	ter suita	ble for	domesti	c purpo	ose and	analyse	the
		concentrati	on of c	arbonat	e, bicar	bonate	and hy	droxide	present	in the g	given sa	imple of	f water.	
СС)3:	Determine	the thic	kness on the ho	of the gi	iven wi d water	re used	for hou	sehold	applicat	ions an	d the an	nount	
Pre-	requisi	ite: Capabl	e of us	ing Scre	ew guag	ge. Ven	nier cal	liper. Tr	avellin	g micros	scope a	nd Spec	tromete	er.
				J	0			1,						
	-			e							10.000			
	Sec.					CO/PO,	PSO N	lapping	;					
		(3/2	/1 indic	ates the	e streng	th of co	orrelatio	on) 3-Sti	ong, 2-	Mediun	n, 1-We	ak		
COs			Program	nme Ou	itcomes	s (POs)	and Pro	ogramn	ne Speci	fic Out	comes (PSOs)	DCO1	DCOD
	PO.	1 PO2	PO3	PO4	PO5	P06	PO7	PO8	P09	POID	POII	POIZ	PS01	PSO2
CO1	3	2		1		1		and the second	1					2
CO2	3	2		1		1			1					2
CO3	3	2		1		1			1					2
			r -		Cou	rse Ass	essmer	nt meth	ods					
2		x a			Direct	:						Ind	lirect	
CIE	test I (1	15)		5	R	TPS (1	0)							
Quiz	1 (5)				R	ecord (10)							
CIE	test II ((15)			T	otal CI	E:60 m	arks			C	ourse e	nd surv	/ey
Ouiz	2 (5)				S	emester	r End F	vaminat	tion (40	(marke)				
LIST	2(3)	XPERIM	ENTS	Physic	s nart)	Cilicsici			1011 (40	(marks)				
1	Deteri	nination of	f the thi	ckness	of a thi	n wire l	by form	ing inte	rferenc	e fringe	s using	air wed	ge	
2	Detern	nination of	f veloci	ity of u	ltrasoni	c wave	s and c	ompres	sibility	of the g	iven lic	quid usi	ng ultra	asonic
3	Deteri	nination of	fwavel	ength o	f laser,	accepta	ince any	gle and	numerio	cal aper	ture of a	an optic	al fibre	using
4	Deter	nination of	f particl	e size c	of lycon	odium	powder	using	liode la	ser.				
T			- P-mener		<u>)</u> = -p		Ferrado							

4.8.2023 Version I.0 Programme:

B.E / B.. Tech Regulations 2023

5	Determination of dispersive power of the prism for various pairs of colo using a spectrometer.	rs in the mercury	spectrum
LIS	T OF EXPERIMENTS (Chemistry part)		, H
6	Estimation of hardness of water sample by EDTA method.		
7	Estimation of alkalinity of water sample by indicator method.		
8	Estimation of HCl by pH metry.		
9	Estimation of HCl by conductometry. (HCl vs NaOH)		
10	Estimation of ferrous ion by potentiometric titration.		
		TOTAL : 30 H	OURS

CS-W

Dr. C. SHANTHI, M.Sc., M.E., Ph.J., Professor of Physics Head, Department of Sciences Sona College of Technology (Autonomous) SALEM-636 005.

Dr. M. RENUGA, Professor & Head, Department of Humanities & Languages, Sona College of Technology, SALEM - 636 005.

B.E / B.. Tech Regulations 2023

		and the second difference of	1										1	1
			PRO	OBLEN	A SOI	VING	USIN	G PYTI	HON	L	T	P	J	C
U	23PPR1	.05	(Comm	ton to AD	PRO S, IT, CS EEE, ME	E, CSE(AII) CH and MC	MINC ML), CSD CT Branch	, CIVIL, B nes)	ME, ECE,	3	0	0	0	3
Cours	e Outco	mes	1											
At the	end of	the cou	rse, the	studen	t will	be able	to							
C01	: De	velop a	lgorithr	nic solu	tions t	o simple	compi	utationa	l probl	ems				
CO2	: W1	rite simp	ole Pyth	ion prog	grams							e The and the second state of the second		
COS	8: W1	rite prog	grams w	vith the	variou	is contro	l staten	nents ar	nd hand	tling str	ings in	Python		
CO4	l: De	velop P	ython p	orogram	ns usin	g functio	ons and	files						
COS	5: An	alyze a	probler	n and u	se app	propriate	data si	tructure	s to sol	ve it.				
Pre-re	quisite:	NIL								7				
	•				(all a said								-	
		(2)	1/1 in dia	ratas th		CO/PO,	PSO M	lapping	5	Madiu	m 1 1470	l.		
		(3/2	Program	nme Oi	e stren	$\frac{gtn of cc}{gtn}$	and Pro	$\frac{1}{2}$	rong, 2	ific Out	n, 1-we	PS()		
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	P09	PO10	PO11	PO12	PSO1	PSO2
CO1	2	2	3	1	1									1
CO2	2	2	3	1	1									1
CO3	2	2	3	1	1									1
CO4	2	2	3	1	1			E. Carlo						1
CO5	2	2	3	1	1					and and				1
					Co	urse Ass	essmer	nt meth	ods					ana an
				I. I	Direct							Indir	ect	
CIE te CIE te CIE te	st I (8) st II (8) st III (8)					Objective Attendar Total CII	es Test nce (5) E: 40 m	(6) arks			Cor	urse end	l surve	у
Assig	nment/s	eminar/	Quiz (5)		Semester	r End E	xamina	tion (60))		4		
Jnit 01	: ALGC	DRITHN	AIC PR	OBLEN	1 SOL	VING							9 Hou	s
Need	for con	nputer l	languag	ges, Alg	orithn	ns, build	ling blo	ocks of	algorit	hms (st	atemen	ts, state	e, contr	ol
flow, solvin	function g. simp	ns), not le strate	ation (j gies for	pseudo develo	code, ping a	flow ch lgorithm	nart, pi ns (itera	ogramition, re	ning la	anguage	e), algoi	rithmic	proble	m
In:+ 07	. PACIO		VTUO		CDAN			-				1	0 1101	
Juit 02	: DASI	.5 OF P	TINO	NPRO	GRAN	IMING			(*)				9 1100	
Introd expres print f	luction- ssions, s function	Python statement, Forma	Interpr nts, pre atting nu	eter-Int ecedenc umbers	eractiv e of o and st	ve and s perators rings, in	cript n , Multi nplicit/e	node -V iple ass explicit	alues a ignmen type co	nd typ nts, con nversio	es, vari nments, n.	ables, c input	perator functio	rs, on,
Jnit 03	CONT	ROL S	TATEM	IENTS	AND	STRING	GS						9 Hou	rs
Condi break,	itional (i continu	if), alter ue, pass,	native (, else. St	if-else), rings-S	chain tring s	ed condi lices, im	tional (mutabi	if-elif-e lity, stri	lse). Ite ing met	ration-v hods ar	vhile, fo id opera	or, infinations.	ite loop),
	4.8.202	23 Ver	sion I.O		Progr	ammer: Bl	E&BTe	ch		B.E / B	Tech Re	gulations	2023	
									M					
								J.	du	ani	$) \Box$	\sim		
							DI	. J. A	KILA	NDE	SWAI	R1		
							Der	artment	of Infor	mation T	CAD			

1.

Dr. J. AKILANDESWARI PROFESSOR & HEAD Department of Information Technology SONA COLLEGE OF TECHNOLOGY SALEM-636 005

Unit 0	4: FUNCTIONS, FI	LES AND MODU	ILES		9 Hours
Funct argui recur	tions - Introduction ments, default argu sion. Files -Text files	, inbuilt function ments, keyword s, reading and wri	s, user defined f arguments, retu ting files. Module	unctions, passing rn values, local s s – create – import	parameters - positional scope, global scope and
Unit 0	5: DATA STRUCTU	JRES: LISTS, SET	rs, tuples, dic	TIONARIES	9 Hours
Lists- creati retur	creating lists, list op ing sets, set operation n value- Dictionaries	perations, list me ons. Tuples-Tuple s-operations and r	thods, mutability assignment, Oper nethods, Nested I	list functions, sea rations on Tuples, Dictionaries, Unior	rching and sorting, Sets- lists and tuples, Tuple as Operation.
I	Theory: 45 Hrs	Tutorial:	Practical:	Project:	Total Hours: 45 Hrs
TEXT	T BOOKS				
1.	Reema Thareja, "I Edition 2023.	Problem Solving a	and Programming	with Python" Ox	ford University Press, 2 nd
REFE	RENCES			n and and have been also and also and also and also a	
1.	Ashok Namdev K Python" Mc-Graw	Camthane, Amit A Hill Education, 2	Ashok Kamthane, 018.	"Programming an	d Problem Solving with
2.	Charles Dierbach, Solving Focus" W	"Introduction to iley India Edition	Computer Scienc, 2013.	e using Python: A	Computational Problem
3.	Allen Downey, "" Edition 2016.	Think Python: H	ow to Think Lik	e a Computer Sc	ientist" O'Reilly Media, 2nd
4.	Timothy A. Budd,	"Exploring Pytho	n" Mc-Graw Hill	Education (India)	Private Ltd., 2015.

J.G Dr. J. AKILANDESWARI

PROFESSOR & HEAD Department of Information Technology SONA COLLEGE OF TECHNOLOGY SALEM-636 005

τ	23PPL	112		РҮТ	HON LA	PROG BORA	RAMN FORY	AING			T	P	J	C
			(Comn	non to AD	S, IT, CS EEE, MEC	E, CSE(AI CH and M	ML), CSD, CT Branch	, CIVIL, B 1es)	ME, ECE,	0	0	2	0	1
Cours	e Outco	omes												
At the	end of	the cou	rse, the	studer	nt will l	be able	to							
CO1:	Im	plemen	t the alg	gorithm	s using	, basic c	ontrol s	tructure	es in Py	thon				
CO2:	De	evelop P	ython p	orogram	ns to us	e functi	ons, stri	ings and	d data s	structur	es to so	lve diff	erent	
CO3:	Im	ples or pl	t persist	tent sto	ring inf	formatio	on throu	ıgh file	operati	ions				
Pre-re	quisite	: NIL												
							DEO M							
		(3/2	0/1 india	rates the	e strend	oth of co	PSO M	apping	5 1011 0 -	Mediur	n 1-We	ak		
		(0/2	Program	nme Oi	utcome	s (POs)	and Pro	ogramn	ne Spec	ific Out	comes (PSOs)		
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	P09	PO10	PO11	PO12	PSO1	PSO
CO1	3	2	2	3	2	1								1
CO2 CO3	3	3	3	3	2	2								$\frac{1}{1}$
		1	I contraction of the		Cou	urse Ass	sessmer	nt meth	ods					
				I	Direct							Indir	ect	
Quiz I CIE te Quiz I	- (5) st II (15 I- (5))			Recor Total Seme	d (10) CIE: 60 ster Enc	marks l Exami	nation ((40 mar	·ks)	Cor	urse en	d surve	У
	1. 2. 3. 4. 5. 6. 7. 8. 9. 10.	Draw flo Impleme Impleme Develop concater Impleme Impleme Develop	ent prog ent vario ent vario ent vario pythom nation, s ent user ent recu ent recu ent pythom ent dicti	using a grams w ous bra ous loo n progra licing, i defined rsion u non progra onary a	any ope vith sim nching ping sta ams to p indexin d funct sing py gram to ams to p and set	en sourd nple lan statement atement perform g. ions usi vthon. o perfor perform in pyth	e softw guage f ents in p ts in pyt variou ing pyth m operat on.	are. eatures. bython. hon. s string non. ations o ions on	operat on file a list and	ions like nd mod d tuples	e ule.			•
	Theory	:	T	utorial:		Practica	al: 30Hr	s I	Project:		To	tal Hou	rs: 30 l	Is
	4.8.20	23 Ver	sion I.O		Progra	mmer: Bl	E&BTe	ch		B.E / B	Tech Re	gulations	2023	
									Dr.	J. AK	LUON ILAN SSOR	DEST & HEA	WARI	

• W

PROFESSOR & HEAD Department of Information Technology SONA COLLEGE OF TECHNOLOGY

0.

			1								—	D	T	
U	23EG	R107		EN	GINEE	RING	GRAPI	HICS		L 3	0	P	J	2
Cours	e Out	comes	<u> </u>											
At the	e end o	of the cou	rse, the	studen	t will b	e able	to	0		1				
601		Construct	Filips	Parah	ola Hy	perbola	Cyclo	ide and	Involu	tos			ar and a	
<u> </u>		Draw the r	oroiectio	on of Pc	ont Lir	e and I	Plane si	irfaces	nivoiu				1	
CO2	$\frac{2}{2}$	Draw the r	projectio	on of sit	nple so	lids by	rotating	a object	metho	d.				
CO.	1. I	Develop th	ne sectio	on of sir	nple so	lids and	l lateral	surface	e of tru	ncated s	olids.			
CO	5. I	Draw the i	sometri	c view	to ortho	ographi	c projec	ction.						* * 2
Pre-re	quisi	e: Nil				0 1	1 ,		-				1	
					C	CO/PO,	PSO M	lapping	5				direa (
		(3/2	2/1 india	cates the	e streng	th of co	orrelatio	on) 3-Sti	rong, 2-	Mediun	n, 1-We	ak		
COs	DOI	DOD	Program	nme Ou	itcomes	(POs)	and Pro	ogramm	ne Spec	ific Outo	comes (PSOs)	DCO1	PCO
	POI	. PO2	PO3	PO4	P05	PO6	P07	POS	P09	POIO	POII	POIZ	19501	P502
CO1	1							3	0. 	2			1	
CO2					3			2		2		2		2
CO3	de la composición de la compos				3			2		2		2	1	2
CO4					3			2		2		2	1	2
CO5			2					2		2		2	1	
1					Cou	rse Ass	essmer	nt meth	ods				and the second second second	
				E	Direct	19						Indir	ect	
CIE te CIE te CIE te Assign	est I (8 est II (8 est III (nment) 3) 8) /seminar/	Quiz (5)	C A T Se	bjective ttendar otal CII emester	es Test nce (5) E: 40 ma End E	(6) arks xamina	tion (60)	Coι	irse enc	l survey	7
CON Impor	CEPTS	6 AND CO	ONVEN cs in er	NTIONS ngineeri	S - (Not ng app	for Exa	aminat s - Use	ion). of drai	fting in	strumer	nts - BIS	5		
conve Letter	ntions ing ar	and spend	ecificationing.	ons —	Size,	layout	and fo	lding o	of drav	ving sh	eets —			
IIn:+ 0	11. DI		WEG	Marrie	1 day 61								9 Hour	s
Basic	Geon	netrical co	onstruct	tions, C	urves	ng). used i	n engi	neering	practi	ces: Co	nics –			510 ¹
Const	ructio	n of ellips	e, paral	ola and	l hyper	bola by	eccent	ricity m	ethod -	- Const	ruction			
of cyc	loid -	- constru	ction of	Involu	te of ci	rcle –	Drawin	ng of ta	ingents	and no	rmal to			
the ab	ovect	irves.												

4.8.2023 Version 1.0

Programme: B.E - Mechanical Engineering

Regulations 2023

9 Dr. D. SENTHIL KUMAR, M.E., Ph.D **PROFESSOR & HEAD** DEPT. OF MECHANICAL ENGG. SONA COLLEGE OF TECHNOLOGY JUNCTION MAIN ROAD, SALEM-5,

Unit 02: PROJECTION OF POINTS, LINES AND PLANE SURFACES (CAD	10 ¹⁰
software).	
Orthographic projection- principles-principal planes-risk angle projection-projection of	0 Hours
points. Projection of straight lines (only First angle projections) inclined to boilt the	9110015
principal planes -Determination of true lengths and true inclinations by folding line	
method. Projection of planes (polygonal and circular surfaces) inclined to one of the	-
principal plane by rotating object method.	
Unit 02: PROJECTION OF SOLIDS (CAD software)	
Projection of simple solids - prisms, pyramids, cylinder and cone, when the axis is	
inclined to one of the principal planes and parallel to the other by change of position	9 Hours
method.	
Unit 04: PROJECTION OF SECTIONED SOLIDS AND DEVELOPMENT OF	
SURFACES (CAD software).	
Section of solids in simple vertical position when the cutting plane is inclined to one of	9 Hours
the principal planes and perpendicular to the other – (obtaining true shape of section	
is not required). Development of lateral surfaces of truncated solids – Prisms,	14 15
pyramids cylinders and cones.	
Unit 05: ISOMETRIC TO ORTHOGRAPHICS PROJECTION- (Manual drafting).	
Representation of three dimensional objects – General Principles - Need for importance	
of multiple views – First angle projection – layout of views – Conversion of isometric	
view to orthographic views	
view to orthographic views.	9 Hours
Practicing three dimensional modelling of simple objects using CAD Software (Not for	
reactioning three dimensional moderning of simple objects damig Crib Software (Not 101	
examination,	
Theory 45 Has Testaviah Brastianh Projects Total	Hours: 45 Hrs
Theory: 45 Firs Tutorial: Flactical: Troject Total	110013. 45 1115
TEXT BOOKS	
1. Bhatt N.D. and Panchal V.M., "Engineering Drawing", Charotar Publishing He	ouse, 53rd Edition,
2019.	
2. Natrajan K.V., "A Text Book of Engineering Graphics", Dhanalakshmi Publishers	, Chennai, 2018.
3. Parthasarathy, N. S. and Vela Murali, "Engineering Drawing", Oxford University	Press, 2015
4. P.Suresh., "Engineering Graphics and Drawing", Sonaversity, Sona Colleg	e of Technology,
Salem, Revised edition, 2012.	

Programme: B.E - Mechanical Engineering

2

Regulations 2023

Dr. D. SENTHIL KUMAR, M.E., Ph.D PROFESSOR & HEAD DEPT. OF MECHANICAL ENGG. SONA COLLEGE OF TECHNOLOGY JUNCTION MAIN ROAD, SALEM-5.

REFE	RENCES
1.	BasantAgarwal and Agarwal C.M., "Engineering Drawing", McGraw Hill, 2nd Edition, 2019.
2.	Gopalakrishna K.R., "Engineering Drawing" (Vol. I&II combined), Subhas Publications, Bangalore, 27thEdition, 2017.
3.	Luzzader, Warren.J. and Duff, John M., "Fundamentals of Engineering Drawing with an introduction
	to Interactive Computer Graphics for Design and Production, Eastern Economy Edition, Prentice Hall
•	of India Pvt. Ltd, New Delhi, 2005.
4.	Parthasarathy N. S. and Vela Murali, "Engineering Graphics", Oxford University, Press, New Delhi,
	2015.
5.	Shah M.B., and Rana B.C., "Engineering Drawing", Pearson Education India, 2nd Edition, 2009.
6.	Venugopal K. and Prabhu Raja V., "Engineering Graphics", New Age International (P) Limited,
	2008.

Dr. D. SENTHIL KUMAR, M.E., Ph.D PROFESSOR & HEAD DEPT. OF MECHANICAL ENGG. SONA COLLEGE OF TECHNOLOGY JUNCTION MAIN ROAD, SALEM-5.

4.8.2023 Version I.0

Programme: B.E - Mechanical Engineering

Regulations 2023

		-							
U23TA	AM101		தமிழர்	மரபு / Heritage of Tamils	L 1	T 0	P 0	J	C
Course Or	utcomes	1						L	
At the one	l of the cour	rea tha	student w	ill be able to					
At the end		130, 110	Student W						
CO1:	Describe 1	amil La	nguage an	d Literature					
CO2:	Analyse H	leritage	- Rock Ar	t Paintings 10 Modern Art – Sculp	ture				
CO3:	Explain Fol	lk and N	Martial Art	ts					
CO4:	Describe T	hinai Co	oncept of 7	Tamils		×			
CO5:	Analyse Co	ontribut	tion of Tar	mils to Indian National Movement	and Ind	lian Cul	ture		
				Course Assessment methods					
		die de	Dire	ect	uman la se		Indire	ct	
CIE test I	(30)			Total CIE: 100 marks		C			-
CIE test II CIE test II	(30) I (40)			Semester End Examination: NIL	· .	Cou	rse ena	survey	
ച്ചകന്ത് 1	: GLDITLD	ເກ່າດເ		ுக்கியாற			3	Hour	
(செம்மெ தன்மை	இந்திய ாழி –தமி – சங்க	மொழி மொழி ழ் செ இல	ந்து இல் க்கு((க்கியத்தி க்கியத்தி	நம்பங்கள் - திராவிட செ கியங்கள் - சங்க இலக்க தில் பகிர்தல் அறம் - தி	மொழி கியத்த நக்குர	கள் தின் க நளில்	- த சமயச் மேல	மிழ் சார் எண்	ஒரு ஒரு பற்ற மைக்
சேம்மெ தன்மை கருத்துக சமயங்க சிற்றிலக் வளர்ச்சி	இந்திய ாழி –தமி - சங்க க்கள் - 5ளின் தா க்கியங்கள் பியில் பார	பொழி மொழி இலை தமி க்கம் ர் - த ரதியார்	நம் துர க்கியத்த நிழ்க் க - பக்தி தமிழில் ட மற்றுய	நம்பங்கள் - திராவிட இ கியங்கள் - சங்க இலக்க தில் பகிர்தல் அறம் - திர காப்பியங்கள், தமிழக இலக்கியம், ஆழ்வார்கள் நவீன இலக்கியத்தின் வ ம் பாரதிதாசன் ஆகியோரின்	மொழி கியத்த நக்குர நக்குர ந தத்தில் எா மற் ளாச்சி ன் பங்	கள் தின் க நளில் நட சப றும் ந சி – த களிப்ப	- த ரமயச் மேல ஹன நாயன் நமிழ் -	மிழ் சார் எண் பெல மார்க இலச்	ூரு பந்ந மைக் ாத்த ள் - ககிய
சேம்மெ தன்மை கருத்துக சமயங்க சிற்றிலக் வளர்ச்சி அலகு 2	இந்திய ாழி –தமி க்கள் – களின் தா ககியங்கள் பில் பார : மரபு – சிற்	மொழி மொழி இலை தமி க்கம் ப் - த பான பக் க	நம் தல க்கியத்த நிழ்க் ச பக்தி தமிழில் நமிழில் நடிலுல் நடிலுல் நடிலுல் நடிலுல் நட	நம்பங்கள் - திராவிட (கியங்கள் - சங்க இலக்க தில் பகிர்தல் அறம் - திர காப்பியங்கள், தமிழக இலக்கியம், ஆழ்வார்கள் நவீன இலக்கியத்தின் வ ம் பாரதிதாசன் ஆகியோரின் பங்கள் முதல் ஒவியங்கள்	மொழி கியத்த நக்குர தத்தில் எார்ச்சி எார்ச்சி எபங் எ வன	கள் தின் க றளில் றைப் ந றும் ந சி – த களிப்ப றை –	- த சமயச் மேல ஹன நாயன் 5மிழ் 	மிழ் சார் எண் பெ மார்க இலச் Hour	ூரு ரைந மைக் எத்த எர் - ககிய ககிய
சேம்மெ தன்மை கருத்துக சமயங்க சிற்றிலக் வளர்ச்சி அலகு 2 மற்றும் செய்யும் குமரிமு வீணை, கோவில்	இந்திய ாழி - தமி - சங்க க்கள் - 5ளின் தா 5ளின் தா ககியங்கள் பில் பார : மரபு – சிற் பில் பார . மரபு – சிற் நடுகல் பு றகளின் ப லகளின் ப	பொழி மொழி இலை தமி க்கம் ர் - த ரதியார் - பான பக் க பான பக் க திருவ நாதவ ங்கு	நம் ஆல் க் கு(க் கியத்த க்கியத்த க்கியத்த நமிழில் ட பக்தி நமிழில் நமிழில் நமிழில் நடித்து நடி நடி நட நட நட நட நட நட நட நட நட நட நட நட நட	நம்பங்கள் - திராவிட (கியங்கள் - சங்க இலக்க தில் பகிர்தல் அறம் - திர காப்பியங்கள், தமிழக இலக்கியம், ஆழ்வார்கள் நவீன இலக்கியத்தின் வ ந பாரதிதாசன் ஆகியோரின் பாரதிதாசன் ஆகியோரின் பாரதிதாசன் ஆகியோரின் ந பாரதிதாசன் ஆகியோரின் பாரதிதாசன் ஆகியோரின் பாரதிதாசன் ஆகியோரின் பாரதிதாசன் ஆகியோரின் சிற்பங்கள் - நாட்டு ர சிலை - இசைக் கருவி - தமிழர்களின் சமூக	மொழி கியத்த நக்குர த்தில் ா மற் எார்ச்சி எ பங் எ பங் எ பங் எ பங் எ பங் ர வன சிலை ள், செ ப்புறத் கள் பெ	கள் தின் க றளில் ற சப றும் ந தி – த களிப்ப த – த கள் - பொம்ன த – டி ர – டி	- த ரமயச் மேல ஹன நாயன் நாயன் நமிழ் பழா நைமகள் நதய்வா நதங்க தார	மிழ் சார் வாண் பெ மார்க இலக் Hour த Hour பகுடிய ப நகள் ம், ப வாழ்	9ரு பந்ந மைக் ாத்த ள் - ககிய கிய வினர் தேர் - ஹில்
செம்மெ தன்மை கருத்துக சமயங்க சிற்றிலக வளர்ச்சி அலகு 2 மற்றும் செய்யும் குமரிமுக வீணை, கோவில் அலகு 3:	இந்திய ாழி – தமி - சங்க க்கள் – 5ளின் தா க்கியங்கள் பில் பார : மரபு – சிற் நடுகல் பு அவர்கள் தடுகல் பு தடிகல் பு தடிகல் பு தையில் யாழ், தளின் ப	பை நி நி நி நி நி நி நி நி நி நி நி நி நி	நம் ஆல் க் கு (க் கியத்தி க்கியத்தி நிழ்க் க - பக்தி நமிழில் நமிழில் நடிழில் நடிழில் கிற்பங்க பாரிக்குப் சுடுமண் பாரிக்குப் சுடுமண் பாரிக்குப் கடுமண் பாரிக்குப் கை	நம்பங்கள் - திராவிட (கியங்கள் - சங்க இலக்க தில் பகிர்தல் அறம் - திர காப்பியங்கள், தமிழக இலக்கியம், ஆழ்வார்கள் நவீன இலக்கியத்தின் வ நவீன இலக்கியத்தின் வ நாக்கள் பூதல் இவியங்கள் கள் வரை – ஐம்பொன் ச ரிற்பங்கள் - நாட்டு சிற்பங்கள் - நாட்டு சிற்பங்கள் - நாட்டு சிற்பங்கள் - நாட்டு சிற்பிழர்களின் சமூக பைற்றும் வீர விளையாட்டு	மொழி தியத்த நக்குர நக்குர நக்குர பந் எர்ச்ச எ பங் ர வன ர வன சிலை ள், தெ பிபுறத் கள் பெ தகள்	கள் தின் க றளில் ற சப றும் ந தி – த களிப்ப ற – கள் - பொம்ன 5 ெ - மிரு ாருளா	- த ரமயச் மேல ஹன நாயன் நமிழ் நமிழ் பழா நைய்வ நதங்க தார	மிழ் சார் வண் பொன் மார்க இலச் Hour ந்கள் ம், ட வாழ் Hour	9ரு பற்ற மைக் ாத்த ள் - கிய வினர் தேர் வின் s
சேம்மெ தன்மை கருத்துக சமயங்க சிற்றிலக வளர்ச்ச அலகு 2 மற்றும் செய்யும் குமரிமுக வீணை, கோவில் அலகு 3:	இந்திய ாழி – தமி ட சங்க க்கள் – களின் தா க்கியங்கள் பில் பார : மரபு – சிற் பில் பார : மரபு – சிற் பில் பார : மரபு – சிற் தருகல் (யு அவர்கள் கலை கையில் யாழ், களின் ப தெருக்கூத வைக் கூத	பொழி மொழி மொழி மாழ் செ இல தமி க்கம் ர் - த தமி நதல் ர் - த திருவ நாத நாத நாத நாத நாத நாத நாத நாத நாத நாத	நம ஆல் க் கு(க் கியத்தி க்கியத்தி ந்திழில் ட பக்தி நமிழில் ட மற்றும் ந ஓவி ந ஓவி ந ஓவி கருபங்க பாரிக்கும் கடுமண் பாரிக்கும் கருபங்க கருப்பு கைகள் கரகாட்டம் சிலம்பாட்	நம்பங்கள் - திராவிட (கியங்கள் - சங்க இலக்க கியங்கள் - சங்க இலக்க தில் பகிர்தல் அறம் - திர காப்பியங்கள், தமிழக காப்பியங்கள், தமிழக இலக்கியம், ஆழ்வார்கள் நவீன இலக்கியத்தின் வ ம் பாரதிதாசன் ஆகியோரின் பாரதிதாசன் ஆகியோரின் பாரதிதாசன் ஆகியோரின் பாரதிதாசன் ஆகியோரின் பாரதிதாசன் ஆகியோரின் மற்றும் வீர விளையாட்டு ந் வில்லுப்பாட்டு, கணியான் டம், வளரி, புலியாட்டம், தப	மொழி தியத்த நக்கு! நக்கு! நக்கு! எார்ச்சி எப்து எார்ச்சி எப்து நிலை ஸ்ப்புறத கெள் பெ கேத்த திழர்க	கள் தின் க றளில் றளில் றும் ந றும் ந களிப்ப ற – கள் - தி விர ந டை ந விர வின் வ	- த FDUபச் மேல ஹன நாயன் நமிழ் 	மிழ் சார் எண் பென் மார்க இலக் 3 Hour ந்கள் ம், ட வரழ் 3 Hour ந்கள் ம், ட வரழ் 3 Hour	⁵ ஒரு பற்ற மைக் ாத்த எர் - ககிய ககிய தர் வினர் தர் வினர் நவில் s
செம்மெ தன்மை கருத்துக சமயங்க சிற்றிலக வளர்ச்சி அலகு 2 மற்றும் செய்யும் குமரிமு வீணை, கோவில் அலகு 3: தோலபா அலகு 4:	இந்திய ாழி – தமி - சங்க க்கள் – களின் தா க்கியங்கள் பில் பார : மரபு – சிற் கையில் பா தருகல் பு தைருக்கத வைக் கூ	பொழி மொழி மொழி மர் செ இலை தமி க்கம் ர் - தமி நதல் ர் - தி ருக் க திருவ நாதவ நாதவ நாதவ நாதவ நாதவ நாதவ நாதவ நாத	நிக் கு(வ்விலக் க்கியத்தி நிழக் க - பக்தி நமிழில் - பக்தி நமிழில் - பக்தி நடிழில் - பக்தி நடிழில் - பக்தி நடிழில் - பக்தி - பக்கி - பக்கி	நம்பங்கள் - திராவிட (கியங்கள் - சங்க இலக்க கியங்கள் - சங்க இலக்க தில் பகிர்தல் அறம் - திர காப்பியங்கள், தமிழக காப்பியங்கள், தமிழக இலக்கியம், ஆழ்வார்கள் நவீன இலக்கியத்தின் வ ம் பாரதிதாசன் ஆகியோரின் நவீன இலக்கியத்தின் வ ம் பாரதிதாசன் ஆகியோரின் நவீன இலக்கியத்தின் வ ம் பாரதிதாசன் ஆகியோரின் நவீன இலக்கியத்தின் வ மர்திதாசன் ஆகியோரின் நவீன இலக்கியத்தின் வ மர்திதாசன் ஆகியோரின் நவீன இலக்கியத்தின் வ மர்திதாசன் ஆகியோரின் நவீன இலக்கியத்தின் வ நிற்பங்கள் - நாட்டு சிற்பங்கள் - நாட்டு சிற்பங்கள் - நாட்டு சிற்பங்கள் - நாட்டு சிற்பங்கள் - நாட்டு சிற்பங்கள் - நாட்டு சிற்பங்கள் - தாட்டு சிற்பை வீர விளையாட்டு நிலை - திலை - திலை - துறைக் கருவி - தமிழர்களின் சமூக கைவிளையாட்டு, கணியான் டம், வளரி, புலியாட்டம், தா கோட்பாடுகள்	மொழி தியத்த நக்கு நக்கு நக்கு நக்கு பற் வாச்சி பற் பற் சிலை ப்புறத் கேள் பெ கேத்த மிழர்க	கள் தின் க றளில் ற சப றும் ந த – த களிப்ப ர – கள் - றா – கள் - றா – த ட ந ட ந ட வின் க	- த FDUUச் மேல நாயன் நாயன் நாயன் நாயன் நாயன் நாயன் நாயன் நாயன் நுய்வ நதங்க தார இலாட்ட விளைப்	மார்க வாண் பொன் மார்க இலச் Hour ந்கள் மாழ் Hour பரட்டு Hour	9ரு பற்ற மைக் ாத்த ள் - க்கிய கிய தர் வினர் தர் வின் கள். கள். கள்.
சேம்மெ தன்மை கருத்துக சமயங்க சிற்றிலக வளர்ச்சி அலகு 2 மற்றும் செய்யும் குமரிமு வீணை, கோவில் அலகு 3: தோலபா அலகு 4:	இந்திய ாழி – தமி - சங்க க்கள் - களின் தா ககியங்கள் பில் பார : மரபு – சிற் கையில் பார : மரபு – சிற் கையில் பார தருகல் (பு அவர்கள் கலை கையில் யாழ், களின் ப நாட்டுப்பு தெருக்கூத வைக் கூத தமிழர்க	பொழி மொழி மாழி இலை தமி க்கம் ர் - த நதல் ர் - பான பக் க நாதல் ர் தய நாதல் நாதல நாதல நாதவ நாதவ நாதவ நாதவ நாதவ நாதவ நாதவ நாதவ	நிக் கு(வ்விலக் க்கியத்தி நிழக் க - பக்தி நமிழில் - பக்தி நமிழில் - பக்தி நமிழில் - பக்தி நடிற்பங்க நற்று - பக்தி - பக்கி - பக்கி - பக்கி - பக்தி - பக்கி - பக்கி	நம்பங்கள் - திராவிட (கியங்கள் - சங்க இலக்க கியங்கள் - சங்க இலக்க தில் பகிர்தல் அறம் - திர காப்பியங்கள், தமிழக காப்பியங்கள், தமிழக இலக்கியம், ஆழ்வார்கள் நவீன இலக்கியத்தின் வ <u>ந</u> வீன இலக்கியத்தின் கள் வரை – ஜம்பொன் கர நிற்பங்கள் - நாட்டு ர பற்றும் வீர விளையாட்டு ந் வில்லுப்பாட்டு, கணியான் டீட், வளரி, புலியாட்டம், தா கோட்பாடுகள் களும், விலங்குகளும் -	மொழி தியத்த நக்குர நக்குர நக்குர நக்குர பந் வி பிற் கள் பெ நகள் பெ நகள் கைத்த மிழர்க தை	கள் தின் க றளில் ற சப றும் ந த ச களிப்ப ர – த களிப்ப ர – கள் - த நி ர – ந ட ந ட ந ட ந ட ந ட வின் எ வின் எ	- த FDUUச் மேல ஹன நாயன் நாயன் நாயன் நற்று பழா நைகள் தய்வா நதங்க தார இலாட்ட விளைப்	மான் வை மான் மார்க இலச் Hour ந்கள் நட்டி பாட்டு Hour பிடு பாட்டு Hour	ஒரு பற்ற மைக் ாத்த எர் - க்கிய கினர் கைிய இதர் வினர் வினர் கைிய கைர். கைவில் க கைவ். க த
சேம்மெ தன்மை கருத்துக சமயங்க சிற்றிலக வளர்ச்சி அலகு 2 மற்றும் செய்பும் குமரிமு வீணை, கோவில் அலகு 3: தோலபா அலகு 4: சங்க இ	இந்திய ாழி – தமி - சங்க க்கள் - களின் தா க்கியங்கள் பில் பார : மரபு – சிற் நடுகல் (பு அவர்கள் கலை தையில் யாழ், களின் ப நாட்டுப்பு தெருக்கூத தைமிழர்க்கு தமிழகத்தி	பொழி மொழி மொழி மு வெ தமி க்கம் ர் - த தமி நதல் ர் - த திருவ நாதவ நாதவ நாதவ நாதவ நாதவ நாதவ நாதவ நாத	நைகாட்டப் கில்ம்பாட் கை கை கை குற்று குற்று குற்று குற்று குற்று குற்று குற்று குற்று குற்று குற்று குற்று கை குற்று கை குற்று கை கை கை கை கை கை கை கை கை கை கை கை கை	நம்பங்கள் - திராவிட (கியங்கள் - சங்க இலக்க கியங்கள் - சங்க இலக்க தில் பகிர்தல் அறம் - திர காப்பியங்கள், தமிழக காப்பியங்கள், தமிழக இலக்கியம், ஆழ்வார்கள் நவீன இலக்கியத்தின் வ ம் பாரதிதாசன் ஆகியோரின் நவீன இலக்கியத்தின் வ ம் பாரதிதாசன் ஆகியோரின் பாரதிதாசன் ஆகியோரின் மற்றும் வர இதைக் கருவி - தமிழர்களின் சமூக பற்றும் வீர விளையாட்டு ம், வில்லுப்பாட்டு, கணியான் டம், வளரி, புலியாட்டம், தா களும், விலங்குகளும் - மற்றும் புறக் கோட்பாடுகள்	மொழி கியத்த நக்குர நக்குர நக்குர நக்குர பற் எார்ச்சி எ பங் ர வன சிலை ன், தே பிழர்க தெ ை ப	கள் தின் க றளில் ற சப றும் ந தெளிப்ப தை தி தி த தி தி ற தி, ஒயி ளின் க நி, ஒயி ளின் க தி, ஒயி வின் க வின் க தி, ஒயி	- த FDULச் மேல ஹன நாயன் நரிழ் 	மிழ் சார் எண் பெ மார்க இலக் Hour க்கள் ம், ப வரழ் Hour பாட்டு Hour	⁵ ஒரு பற்ற மைக் ாத்த எர் க்கிய தர் கேள். 5 தர் நறும் நறும்

சங்கக	கால நகரங்களும் துறை முகங்களும் - சங்ககாலத்தில் ஏற்றுமதி மற்றும்
இறக்	தமதி — கடல்கடந்த நாடுகளில் சோழர்களின் வெற்றி.
அலகு தமிழர்	5: இந்திய தேசிய இயக்கம் மற்றும் இந்திய பண்பாட்டிற்குத் களின் பங்களிப்பு
	இந்திய விடுதலைப்போரில் தமிழர்களின் பங்கு - இந்தியாவின்
பிறப்ப	பகுதிகளில் தமிழ்ப் பண்பாட்டின் தாக்கம் - சுயமரியாதை இயக்கம் - இந்திய
மருத்	துவத்தில், சித்த மருத்துவத்தின் பங்கு – கல்வெட்டுகள்
கை	யழுத்துப்படிகள் - தமிழ்ப் புத்தகங்களின் அச்சு வரலாறு.
Th	eory: 15 Hrs Tutorial: Practical: Project: Total Hours: 15 Hrs
REFER	RENCES
1	தமிழக வரலாறு — மக்களும் பண்பாடு — கே.கே. பிள்ளை (வெளியீடு: கமிம்நாடு பாடநால் மும்மும் கல்லியியல் பணிகள் கமகம்)
2	தனினிக் துரிழ் - முனைவர் இல்குந்தாழ் (விகடன் பிரசாம்).
2	
3	கழடி – வைகை நதிக்கரையில் சங்ககால நகர் நாகாகம் (தொல்லியல் துறை வெளியீடு)
4	பொருநை —ஆற்றங்னரை நாகரிகம். (தொல்லியல் துறை வெளியீடு)
5	Social Life of Tamils (Dr.K.K.Pillay) A joint publication of TNTB & ESC and RMRL - (in print)
6	Social Life of the Tamils - The Classical Period (Dr.S.Singaravelu) (Published by:
	International Institute of Tamil Studies
7	Historical Heritage of the Tamils (Dr.S.V.Subatamanian, Dr.K.D. Thirunavukkarasu)
0	The Contributions of the Tamils to Indian Culture (Dr. M. Valarmathi) (Published by:
0	International Institute of Tamil Studies.)
9	Keeladi - 'Sangam City C ivilization on the banks of river Vaigai' (Jointly Published by:
	Department of Archaeology & Tamil Nadu Text Book and Educational Services Corporation,
10	Studies in the History of India with Special Reference to Tamil Nadu (Dr.K.K.Pillav)
10	(Published by: The Author)
11	Porunai Civilization (Jointly Published by: Department of Archaeology & Tamil Nadu Text
	Book and Educational Services Corporation, Tamil Nadu)
1 40	

HOD

Dr. M.RENUGA, Professor & Head, Department of Humanities & Languages, Sona College of Technology, SALEM - 650 005.

Programme: B. E / B. Tech

0201	TAM101	தமிழர் ၊	олц / Heritage of Tamils			P	J	
Course C	Outcomes			1	0	0	0	1
At the on	d of the cour	no the student -	11 h				•	
At the en		se, the student w	III be able to					
CO1:	Describe T	amil Language an	d Literature					
CO2:	Analyse H	eritage - Rock Art	Paintings To Modern Art -	Sculpture				
CO3:	Explain Fol	k and Martial Art	S		<u></u>			
CO4:	Describe Tl	ninai Concept of T	amils					
CO5:	Analyse Co	ontribution of Tan	nils to Indian National Move	ment and In	lian Cul	ture		
		(Course Assessment methods	3				
	1	Dire	ct			Indired	t	
CIE test I	(30)		Total CIE: 100 marks					
CIE test I	[(30)		Semester End Examination	n: NIL	Cou	rse end	survey	
CIE test I	LI (40)					1		
	Towili in I	LITERATURE	T '1 O1	• • •		3	Hours	
Land - Ba literature Jnit 02: H	kthi Literatur in Tamil - Co IERITAGE -	e Azhwars and N ntribution of Bha	ayanmars - Forms of minor F rathiyar and Bharathidhasan.	Poetry - Dev	elopmen	t of Mo	dern	
Land - Ba literature Jnit 02: H SCULPTU	kthi Literatur in Tamil - Co IERITAGE - JRE	e Azhwars and N ntribution of Bha ROCK ART PA	ayanmars - Forms of minor F rathiyar and Bharathidhasan.	Poetry - Dev	elopmen	t of Mo	dern Hours	
Land - Ba literature Jnit 02: H SCULPTU Hero ston	kthi Literatur in Tamil - Co IERITAGE - JRE e to modern s	e Azhwars and N ntribution of Bha ROCK ART PA	ayanmars - Forms of minor F rathiyar and Bharathidhasan. INTINGS TO MODERN A icons - Tribes and their hand	ART –	elopmen	t of Mo	dern Hours	
Land - Ba literature Jnit 02: H SCULPTU Hero ston making - Making o	kthi Literatur in Tamil - Co IERITAGE - JRE e to modern s - Massive Ter f musical inst	e Azhwars and N ntribution of Bhar ROCK ART PA sculpture - Bronze tracotta sculptures ruments - Mridha	ayanmars - Forms of minor F rathiyar and Bharathidhasan. INTINGS TO MODERN A icons - Tribes and their hand b, Village deities, Thiruvalluv ngam, Parai, Veenai, Yazh a	ART – licrafts - Art var Statue at nd Nadhasw	of temp Kanyakaram - R	all rain t of Mo 3 ble car umari, cole of	dern Hours	
Land - Ba literature Jnit 02: H SCULPTU Hero ston making - Making o Temples i	kthi Literatur in Tamil - Co IERITAGE - JRE e to modern s - Massive Ter f musical inst n Social and	e Azhwars and N ntribution of Bha ROCK ART PA sculpture - Bronze tracotta sculptures ruments - Mridha Economic Life of	ayanmars - Forms of minor F rathiyar and Bharathidhasan. INTINGS TO MODERN icons - Tribes and their hand , Village deities, Thiruvalluv ngam, Parai, Veenai, Yazh an Tamils	oetry - Dev ART – licrafts - Art var Statue at nd Nadhasw	of temp Kanyak aram - F	all rain t of Mo 3 de car umari, tole of	dern Hours	
Land - Ba literature Jnit 02: H SCULPTU Hero ston making - Making o Temples i Unit 03:	kthi Literatur in Tamil - Co IERITAGE - JRE e to modern s - Massive Ter f musical inst n Social and FOLK AND	e Azhwars and N ntribution of Bhar ROCK ART PA sculpture - Bronze tracotta sculptures ruments - Mridha Economic Life of MARTIAL AR	ayanmars - Forms of minor F rathiyar and Bharathidhasan. INTINGS TO MODERN A icons - Tribes and their hand , Village deities, Thiruvalluv ngam, Parai, Veenai, Yazh an Tamils	oetry - Dev ART – dicrafts - Art var Statue at nd Nadhasw	of temp Kanyak aram - F	alle car umari, cole of 3	Hours	3
Land - Ba literature Jnit 02: H SCULPTU Hero ston making - Making o Temples i Unit 03: Therukoo Tiger dan	kthi Literatur in Tamil - Co IERITAGE - JRE e to modern s - Massive Ter f musical inst in Social and FOLK ANI thu, Karagatt ce - Sports an	e Azhwars and N ntribution of Bhar ROCK ART PA sculpture - Bronze tracotta sculptures ruments - Mridha Economic Life of MARTIAL AR am, Villu Pattu, k d Games of Tami	ayanmars - Forms of minor F rathiyar and Bharathidhasan. INTINGS TO MODERN A icons - Tribes and their hand , Village deities, Thiruvalluv ngam, Parai, Veenai, Yazh an Tamils TS Kaniyan Koothu, Oyillattam,	ART – dicrafts - Art var Statue at nd Nadhasw	of temp Kanyak aram - F	alle car umari, cole of 3 ilambatt	Hours Hours Hours tam, V	alari
Land - Ba literature Jnit 02: H SCULPTU Hero ston making - Making o Temples i Unit 03: Therukoo Tiger dan Jnit 04:	kthi Literatur in Tamil - Co IERITAGE - JRE e to modern s - Massive Ter f musical inst n Social and FOLK ANI thu, Karagatt ce - Sports an THINAL CO	e Azhwars and N ntribution of Bhar ROCK ART PA sculpture - Bronze tracotta sculptures ruments - Mridha Economic Life of MARTIAL AR am, Villu Pattu, K ad Games of Tami	ayanmars - Forms of minor F rathiyar and Bharathidhasan. INTINGS TO MODERN A icons - Tribes and their hand , Village deities, Thiruvalluv ngam, Parai, Veenai, Yazh an Tamils TS Kaniyan Koothu, Oyillattam, ls	ART – licrafts - Art var Statue at nd Nadhasw	of temp Kanyak aram - F	alle car umari, cole of 3 ilambatt	Hours Hours Hours tam, V	alari
Land - Ba literature Jnit 02: H SCULPTU Hero ston making - Making o Temples i Unit 03: Therukoo Tiger dan Jnit 04: Flora and	kthi Literatur in Tamil - Co IERITAGE - JRE e to modern s - Massive Ter f musical inst n Social and FOLK ANI thu, Karagatt ce - Sports an THINAI CO Fauna of Tar	e Azhwars and N ntribution of Bha ROCK ART PA sculpture - Bronze tracotta sculptures ruments - Mridha Economic Life of MARTIAL AR am, Villu Pattu, k d Games of Tami NCEPT OF TAN nils & Aham and	ayanmars - Forms of minor F rathiyar and Bharathidhasan. INTINGS TO MODERN A icons - Tribes and their hand s, Village deities, Thiruvalluv ngam, Parai, Veenai, Yazh ar Tamils TS Kaniyan Koothu, Oyillattam, ls IILS Puram Concept from Tholka	ART – dicrafts - Art var Statue at nd Nadhasw Leather pup	of temp Kanyak aram - R opetry, S	all rain t of Mo 3 ble car umari, cole of 3 ilambatt 3 n Litera	Hours Hours Hours tam, V Hours ture - 4	alari
Land - Ba literature Jnit 02: H SCULPTU Hero ston making - Making o Temples i Unit 03: Therukoo Tiger dan Jnit 04: 7 Flora and Concept o	kthi Literatur in Tamil - Co IERITAGE - J RE e to modern s - Massive Ter f musical inst n Social and FOLK ANI thu, Karagatt ce - Sports an THINAI CO Fauna of Tamis - Ec	e Azhwars and N ntribution of Bhar ROCK ART PA sculpture - Bronze tracotta sculptures ruments - Mridha Economic Life of MARTIAL AR am, Villu Pattu, k d Games of Tami NCEPT OF TAM nils & Aham and lucation and Liter	ayanmars - Forms of minor F rathiyar and Bharathidhasan. INTINGS TO MODERN A icons - Tribes and their hand , Village deities, Thiruvalluv ngam, Parai, Veenai, Yazh an Tamils TS Kaniyan Koothu, Oyillattam, ls IILS Puram Concept from Tholka acy during Sangam Age - Ar	ART – dicrafts - Art var Statue at nd Nadhasw Leather pup appiyam and ncient Cities	of temp Kanyaki aram - F opetry, S	alle car umari, cole of 3 ilambatt 3 n Litera ts of Sa	Hours Hours tam, V Hours ture - A ngam A	alari Aram Age -
Land - Ba literature Jnit 02: H SCULPTU Hero ston making - Making o Temples i Unit 03: Therukoo Tiger dan Jnit 04: 7 Flora and Concept o Export an	kthi Literatur in Tamil - Co IERITAGE - JRE e to modern s - Massive Ter f musical inst n Social and FOLK ANI thu, Karagatt ce - Sports an THINAI CO Fauna of Tamils - Ec d Import duri	e Azhwars and N ntribution of Bhar ROCK ART PA sculpture - Bronze tracotta sculptures ruments - Mridha Economic Life of MARTIAL AR am, Villu Pattu, K d Games of Tami NCEPT OF TAN nils & Aham and lucation and Liter ng Sangam Age -	ayanmars - Forms of minor F rathiyar and Bharathidhasan. INTINGS TO MODERN A icons - Tribes and their hand , Village deities, Thiruvalluv ngam, Parai, Veenai, Yazh ar Tamils TS Kaniyan Koothu, Oyillattam, ls IILS Puram Concept from Tholka acy during Sangam Age - Ar Overseas Conquest of Chola	ART – dicrafts - Art var Statue at nd Nadhasw Leather pup appiyam and ncient Cities IS.	of temp Kanyak aram - F opetry, S I Sangar and Por	alle car umari, cole of 3 ilambatt n Litera ts of Sa	Hours Hours Hours tam, V Hours ture - A ngam A	alari Aran Age
Land - Ba literature Jnit 02: H SCULPTU Hero ston making - Making o Temples i Unit 03: Therukoo Tiger dan Jnit 04: 7 Flora and Concept of Export an Jnit 05: C	kthi Literatur in Tamil - Co HERITAGE - JRE e to modern s - Massive Ter f musical inst n Social and FOLK ANI thu, Karagatt ce - Sports an FHINAI CO Fauna of Tamils - Ec d Import duri CONTRIBUT	e Azhwars and N ntribution of Bhar ROCK ART PA sculpture - Bronze tracotta sculptures ruments - Mridha Economic Life of MARTIAL AR am, Villu Pattu, k d Games of Tami NCEPT OF TAM nils & Aham and lucation and Liter ng Sangam Age - TION OF TAMII	ayanmars - Forms of minor F rathiyar and Bharathidhasan. INTINGS TO MODERN A icons - Tribes and their hand , Village deities, Thiruvalluv ngam, Parai, Veenai, Yazh an Tamils TS Kaniyan Koothu, Oyillattam, ls IILS Puram Concept from Tholka acy during Sangam Age - An Overseas Conquest of Chola LS TO INDIAN NATIONA	ART – dicrafts - Art var Statue at nd Nadhasw Leather pup appiyam and ncient Cities I. MOVEM	of temp Kanyaki aram - R opetry, S I Sangar and Por	alle car umari, cole of 3 ilambatt 3 n Litera ts of Sa 3	Hours Hours tam, V Hours ture - A ngam A	alari Aran Age
Land - Ba literature Jnit 02: H SCULPTU Hero ston making - Making o Temples i Unit 03: Therukoo Tiger dan Jnit 04: Flora and Concept o Export an Jnit 05: C ND IND Contribut	kthi Literatur in Tamil - Co IERITAGE - JRE e to modern s - Massive Ter f musical inst n Social and FOLK ANI thu, Karagatt ce - Sports an THINAI CO Fauna of Tamils - Ec d Import duri CONTRIBUT IAN CULTU ion of Tamils	e Azhwars and N ntribution of Bhar ROCK ART PA sculpture - Bronze tracotta sculptures ruments - Mridha Economic Life of MARTIAL AR am, Villu Pattu, K ad Games of Tami NCEPT OF TAM nils & Aham and lucation and Liter ng Sangam Age - TION OF TAMIN RE to Indian Freedom	 ayanmars - Forms of minor Frathiyar and Bharathidhasan. INTINGS TO MODERN A icons - Tribes and their hands, Village deities, Thiruvalluv, ngam, Parai, Veenai, Yazh ar Tamils TS Kaniyan Koothu, Oyillattam, ls IILS Puram Concept from Tholks acy during Sangam Age - Ar Overseas Conquest of Chola LS TO INDIAN NATIONA m Struggle - The Cultural Infi 	Poetry - Dev ART – licrafts - Art var Statue at nd Nadhasw Leather pup appiyam and ncient Cities I. MOVEM	of temp Kanyaka aram - F opetry, S I Sangar and Por IENT amils ov	alle car umari, cole of 3 ilambatt 3 n Litera ts of Sa 3 er the of	Hours Hours tam, V Hours ture - A ngam A Hours ther pai	alari Aran Age -
Land - Ba literature Jnit 02: H SCULPTU Hero ston making - Making o Temples i Unit 03: Therukoo Tiger dan Jnit 04: 7 Flora and Concept of Export an Jnit 05: C ND IND Contribut India – Se	kthi Literatur in Tamil - Co IERITAGE - JRE e to modern s - Massive Ter f musical inst n Social and FOLK ANI thu, Karagatt ce - Sports an THINAI CO Fauna of Tamils - Ec d Import duri CONTRIBUT IAN CULTU ion of Tamils	e Azhwars and N ntribution of Bhar ROCK ART PA sculpture - Bronze tracotta sculptures ruments - Mridha Economic Life of MARTIAL AR am, Villu Pattu, k d Games of Tami NCEPT OF TAM nils & Aham and lucation and Liter ng Sangam Age - TION OF TAMII RE to Indian Freedor ovement - Role o	ayanmars - Forms of minor F rathiyar and Bharathidhasan. INTINGS TO MODERN A icons - Tribes and their hand , Village deities, Thiruvalluv ngam, Parai, Veenai, Yazh ar Tamils TS Kaniyan Koothu, Oyillattam, ls IILS Puram Concept from Tholka acy during Sangam Age - Ar Overseas Conquest of Chola LS TO INDIAN NATIONA m Struggle - The Cultural Inf f Siddha Medicine in Indigen	ART – dicrafts - Art var Statue at nd Nadhasw Leather pup appiyam and ncient Cities I. MOVEM fluence of Ta nous System	of temp Kanyaka aram - F opetry, S I Sangar and Por ENT amils ov s of Med	all rain t of Mo 3 ble car umari, cole of 3 ilambatt 3 n Litera ts of Sa er the of licine –	Hours Hours tam, V Hours ture - A ngam A Hours ther pai Inscrip	alari Aran Age
Land - Ba literature Jnit 02: H SCULPTU Hero ston making - Making o Temples i Unit 03: Therukoo Tiger dan Jnit 04: Flora and Concept o Export an Jnit 05: C ND IND Contribut India – Se & Manuso	kthi Literatur in Tamil - Co IERITAGE - JRE e to modern s - Massive Ter f musical inst n Social and FOLK AND thu, Karagatt ce - Sports an THINAI CO Fauna of Tamils - Ec d Import duri CONTRIBUT IAN CULTU ion of Tamils elf-Respect M cripts – Print	e Azhwars and N ntribution of Bhar ROCK ART PA sculpture - Bronze tracotta sculptures ruments - Mridha Economic Life of MARTIAL AR am, Villu Pattu, k ad Games of Tami NCEPT OF TAM nils & Aham and lucation and Liter ng Sangam Age - TION OF TAMII RE to Indian Freedom ovement - Role o History of Tamil	Tahin Epics and Impact of E ayanmars - Forms of minor F rathiyar and Bharathidhasan INTINGS TO MODERN A icons - Tribes and their hand , Village deities, Thiruvalluv ngam, Parai, Veenai, Yazh an Tamils TS Kaniyan Koothu, Oyillattam, Is MILS Puram Concept from Tholka acy during Sangam Age - Ar Overseas Conquest of Chola LS TO INDIAN NATIONA m Struggle - The Cultural Inf f Siddha Medicine in Indigen Books	ART – dicrafts - Art var Statue at nd Nadhasw Leather pup appiyam and ncient Cities I. MOVEM fluence of Ta nous System	of temp Kanyaki aram - F opetry, S Sopetry,	alle car umari, cole of 3 ilambatt 3 n Litera ts of Sa er the of licine –	Hours Hours tam, V Hours ture - A ngam A Hours ther pai Inscrip	alari Aram Age - s rts o:
Land - Ba literature Jnit 02: H GCULPTU Hero ston making - Making o Temples i Unit 03: Therukoo Tiger dan Jnit 04: Therukoo Concept of Export an Jnit 05: C ND IND Contribut India – Se & Manuso Theorem	kthi Literatur in Tamil - Co HERITAGE - JRE e to modern s - Massive Ter f musical inst n Social and FOLK ANI thu, Karagatt ce - Sports an THINAI CO Fauna of Tamils - Ec d Import duri CONTRIBUT IAN CULTU ion of Tamils elf-Respect M cripts – Print ry: 15 Hrs	e Azhwars and N ntribution of Bhar ROCK ART PA culpture - Bronze rracotta sculptures ruments - Mridha Economic Life of MARTIAL AR am, Villu Pattu, K ad Games of Tami NCEPT OF TAM nils & Aham and lucation and Liter ng Sangam Age - TON OF TAMI RE to Indian Freedor ovement - Role o History of Tamil	Taim Epies and Impact of Easting and Epies and Impact of Easting and Ea	ART – dicrafts - Art var Statue at nd Nadhasw Leather pup appiyam and ncient Cities L MOVEM fluence of Ta nous System ject:	i of temp Kanyaka aram - F opetry, S I Sangar and Por ENT amils ov s of Med Total	all car umari, cole of 3 ilambatt 3 n Litera ts of Sa er the of licine –	Hours Hours tam, V Hours ture - A ngam A Hours ther par Inscrip	alari Aran Age rts o tions
Land - Ba literature Jnit 02: H SCULPTU Hero stom making - Making o Temples i Unit 03: Therukoo Tiger dan Jnit 04: 7 Flora and Concept o Export an Jnit 05: C ND IND Contribut India – Se & Manuso REFEREI	kthi Literatur in Tamil - Co HERITAGE - J RE e to modern s - Massive Ter f musical inst in Social and FOLK ANI thu, Karagatt ce - Sports an FHINAI CO Fauna of Tamils - Ec d Import duri CONTRIBUT IAN CULTU ion of Tamils elf-Respect M cripts – Print ry: 15 Hrs NCES	e Azhwars and N ntribution of Bhar ROCK ART PA sculpture - Bronze tracotta sculptures ruments - Mridha Economic Life of MARTIAL AR am, Villu Pattu, k ad Games of Tami NCEPT OF TAM nils & Aham and lucation and Liter ng Sangam Age - TION OF TAMII RE to Indian Freedor ovement - Role o History of Tamil 1 Tutorial:	Taim Epies and Impact of E ayanmars - Forms of minor F rathiyar and Bharathidhasan INTINGS TO MODERN A icons - Tribes and their hand y, Village deities, Thiruvalluv ngam, Parai, Veenai, Yazh an Tamils TS Kaniyan Koothu, Oyillattam, ls IILS Puram Concept from Tholka acy during Sangam Age - Ar Overseas Conquest of Chola LS TO INDIAN NATIONA m Struggle - The Cultural Inf f Siddha Medicine in Indigen Books Practical:	ART – dicrafts - Art var Statue at nd Nadhasw Leather pup appiyam and ncient Cities I. MOVEM fluence of Ta nous System ject:	i of temp Kanyaki aram - F opetry, S I Sangar and Por IENT amils ov s of Med Total	all rain all car umari, cole of all ambatt an Litera ts of Sa ar the of licine – Hours:	Hours Hours tam, V Hours ture - A ngam A Hours ther pai Inscrip	alari Aran Age rts o tions
Land - Ba literature Jnit 02: H SCULPTU Hero ston making - Making o Temples i Unit 03: Therukoo Tiger dan Jnit 04: Flora and Concept o Export an Jnit 05: C ND IND Contribut India – Se & Manuso REFEREI 1	kthi Literatur in Tamil - Co IERITAGE - JRE e to modern s - Massive Ter f musical inst n Social and FOLK AND thu, Karagatt ce - Sports an THINAI CO Fauna of Tamils - Ec d Import duri CONTRIBUT IAN CULTU ion of Tamils elf-Respect M cripts – Print ry: 15 Hrs NCES 5161105 6110	e Azhwars and N ntribution of Bhar ROCK ART PA acculpture - Bronze rracotta sculptures ruments - Mridha Economic Life of MARTIAL AR am, Villu Pattu, K ad Games of Tami NCEPT OF TAM nils & Aham and lucation and Liter ng Sangam Age - TION OF TAMII RE to Indian Freedor ovement - Role of History of Tamil I Tutorial:	Taim Epies and impact of 1 ayanmars - Forms of minor F rathiyar and Bharathidhasan INTINGS TO MODERN A icons - Tribes and their hand your of the structure your of the structure your of the structure ayanmars - Forms of minor F rathiyar and Bharathidhasan INTINGS TO MODERN A icons - Tribes and their hand your of the structure your of the structure TS Caniyan Koothu, Oyillattam, Is MILS Puram Concept from Tholka acy during Sangam Age - Ar Overseas Conquest of Chola LS TO INDIAN NATIONA m Struggle - The Cultural Inf Siddha Medicine in Indigen Books Practical: Pro Jth Lioton Gum (Juli) - 105.10	ART – dicrafts - Art var Statue at nd Nadhasw Leather pup appiyam and ncient Cities I. MOVEM fluence of Ta ious System ject:	i of temp Kanyaka aram - F opetry, S Sopetry, S Sopetr	alle car umari, cole of 3 ilambatt 3 n Litera ts of Sa 3 er the of licine – 1 Hours:	Hours Hours tam, V Hours ture - A ngam A Hours ther pai Inscrip	alari alari Aran Age - rts o tions
Land - Ba literature Jnit 02: H SCULPTU Hero stom making - Making o Temples i Unit 03: Therukoo Tiger dan Jnit 04: 7 Flora and Concept o Export an Jnit 05: C ND IND Contribut India – Se & Manuso REFEREI 1	kthi Literatur in Tamil - Co IERITAGE - JRE e to modern s - Massive Ter f musical inst n Social and FOLK ANI thu, Karagatt ce - Sports an THINAI CO Fauna of Tamils of Tamils - Ec d Import duri CONTRIBUT IAN CULTU ion of Tamils elf-Respect M cripts – Print ry: 15 Hrs NCES 500 gan G	e Azhwars and N ntribution of Bhar ROCK ART PA sculpture - Bronze tracotta sculptures ruments - Mridha Economic Life of MARTIAL AR am, Villu Pattu, k d Games of Tami NCEPT OF TAM nils & Aham and lucation and Liter ng Sangam Age - TION OF TAMII RE to Indian Freedor ovement - Role o History of Tamil I Tutorial:	ayanmars - Forms of minor F rathiyar and Bharathidhasan. INTINGS TO MODERN A icons - Tribes and their hand , Village deities, Thiruvalluv ngam, Parai, Veenai, Yazh an Tamils TS Kaniyan Koothu, Oyillattam, Is MILS Puram Concept from Tholka acy during Sangam Age - Ar Overseas Conquest of Chola S TO INDIAN NATIONA m Struggle - The Cultural Inf f Siddha Medicine in Indigen Books Practical: Pro	ART – dicrafts - Art var Statue at nd Nadhasw Leather pup appiyam and ncient Cities L MOVEM fluence of Ta ious System ject:	i of temp Kanyaki aram - F opetry, S I Sangar and Por I Sangar and Por I Sangar and Por I Sangar and Por I Sangar and Por	alle car umari, cole of allambatt an Litera ts of Sa ar the of licine – Hours: fluige:	Hours Hours tam, V Hours ture - A ngam A Hours ther pa Inscrip	alari Aram Age rts of tions

3	கீழடி – மவமக நதிக்கமரயில் ெங்ககொல நகர நொகரிகம்
	(ததொல்லியல் துமறதவளியீடு)
4	பொருமந – ஆற்றங்கமர நொகரிகம். (ததொல்லியல் துமற தவளியீடு)
5	Social Life of Tamils (Dr.K.K.Pillay) A joint publication of TNTB & ESC and RMRL – (in print)
6	Social Life of the Tamils - The Classical Period (Dr.S.Singaravelu) (Published by:
7	Historical Heritage of the Tamils (Dr.S.V.Subatamanian, Dr.K.D. Thirunavukkarasu) (Published by: International Institute of Tamil Studies).
8	The Contributions of the Tamils to Indian Culture (Dr.M.Valarmathi) (Published by: International Institute of Tamil Studies.)
9	Keeladi - 'Sangam City C ivilization on the banks of river Vaigai' (Jointly Published by: Department of Archaeology & Tamil Nadu Text Book and Educational Services Corporation, Tamil Nadu)
10	Studies in the History of India with Special Reference to Tamil Nadu (Dr.K.K.Pillay) (Published by: The Author)
11	Porunai Civilization (Jointly Published by: Department of Archaeology & Tamil Nadu Text Book and Educational Services Corporation, Tamil Nadu)
12	Journey of Civilization Indus to Vaigai (R.Balakrishnan) (Published by: RMRL) – Reference Book.

M-Lon-

Dr. M.RENUGA, Professor & Head, Department of Humanities & Languages, Sona College of Technology, SALEM - 636 (c)

Programme: B. E / B. Tech

B.E / B. Tech Regulations 2023

,													r
U2	3GE101			BA	SIC AP	TITUDI	E-1		L	T	P	J	C
				-100 10 40	×3¥ 131	626 ¥ <i>27</i> 2	The state		2	0	0	0	0
Course (Dutcome	8				····					I		
At the en	nd of the	course	, the stu	udent w	ill be ab	le to							
CO1:	Solve t	he prol	olems in	i Divisi	bility , D	Division	algorithm	,Succes	sive Di	vision an	d HCI	F&L	CM.
	Identify	y Synor	nyms ar	nd Antor	iyms.		· · · ·						
CO2:	Elucida	ate the	problem	is in BO	DMAS r	ule, App	proximati	on, Surd	s and Ir	ndices, A	lgebra	10	
	Simpli	fication	and Sq	uare roc	ot and Cu	ibe root.	the virie						
600	Crook	appro	priate v	erbai Al	Datio	and Drom	the given	n passage	es.		The		
CO3:	Crack	che pro	the give	ivoiving	Katio a	and Prop	ortion, a	nd discus	ss Prope	ortionalit	y Theo	orems.	
1.1	correct	by	life give	II passag		cauling C	omprene		livity a	ilu aliswe	i me ç	lacsur	JII5
CO4.	Deduce	the nr	ohlems	involvir	o Linear	equatio	n and Or	adratic e	equation	1			
004:	Demon	strate	good v	ocabula	ry skill	by doin	g the or	ne word	substit	ution an	d sent	ence	filler
	exercis	e with	high de	pree of a	ecuracy	oy dom	5 110 01		5405111	ation an		CHICC	miter
CO5.	Interpr	et the l	ogical r	easoning	problen	ns from	Number	series .C	oding a	and Deco	ding a	nd Ex	chibit
005.	good e	xpertise	e in dete	ecting er	rors in th	ne given	sentence	s.	0				
Pre-requ	isite:	1		0		0							
•	Basic F	English	languag	e and G	rammar	knowled	loe						
	Vecul	adaa in	Desis	Joth and	tion	KIIO WICC	-50						
	Knowle	eage in	Basic r	viatnema	aucs								
					CO/PO	, PSO N	I apping						
	(3/2/1 ii	ndicates	s the stre	ngth of c	correlatio	on) 3-Stro	ong, 2-M	edium,	1-Weak			
	1997 - M. J.	Pr	ogramm	ne Outco	mes (PO	s) and P	rogramm	ne Specif	ic Outc	omes (PS	SOs)		
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	P09	PO10	PO 11	PC)12
CO1	3	3-	3.	2	1	1	1	3	3-	3-	2	3	5
CO2	3	3	3	2	1	1	1	3	3	3	2	3	j
CO3	3	3	3	2	1	1	1	3	3	3	2	3	J
CO4	3	3	3	2	1	1	1	3	3	3	2	3	\$
CO5	3	3	3	2	1	1	1	3	3	3	2	3	,
						an a		1					
				<u> </u>	ourse As	ssessme	nt metho	ods					
				Direc	et					Iı	ıdirec	t	
CIE test	I (30) - TI	heory			Total (TE: 100	marke						
CHE to the	H-(20) 7	12			Total	. 100	marks		-				
CIE test	II (30) - 1	neory			Semes	ster End	Examina	tion – N	IL	Course	e end s	urvey	,
CIE test	III (40) –	Theory	y							<i>,</i>			

Unit	: 01					6 Hours
Ñur	nber Properties: Cl	assification of nur	mbers - Divisibilit	y - Division algor	rithm -Succes	ssive Division -
HC	F and LCM – Proble	ems				
Ver	bal Aptitude: Syno	nyms and b. Anto	nyms			т. - С
Unit	: 02	-				6 Hours
Sim	plification: BODM	IAS Rule - Appro	ximation - Surds	and Indices - Alg	ebraic Simpli	ification - Square
root	and Cube root – P	roblems				
Ver	bal Aptitude: Verba	al analogy, Editin	g passages			
Unit	: 03					6 Hours
Rat	o and Proportion :	Ratio - Properties	of Ratios - Comp	ound Ratio - Coi	n based probl	ems - Proportion -
Proj	portionality Test - I	Proportionality Th	eorems - Inverse	Proportion - Varia	ation - Proble	ems
Ver	bal Aptitude: Read	ing Comprehensio	on			
Unit	: 04		'n			6 Hours
Equ	ations:	-	-			
a.	Linear equation: Si	imultaneous Linea	ar Equations - Cor	sistent System - I	Inconsistent S	System - Problems
b.	Quadratic Equation	n: Different Ways	to Express the Qu	adratic Equation	- Discriminat	nt of the Quadratic
	Equations - Roots -	- Nature of the Ro	oots - Relation be	tween roots and c	coefficient of	equation -
	Formation of a Qua	adratic Equation –	- Problems			
Ver	bal Aptitude: One	word substitution	, Sentence filler v	vords		
Unit	: 05					6 Hours
Log	ical Reasoning : N	umber series – Co	ding and Decodir	ig – Problem		
Ver	bal Aptitude: Error	detection	C C	·		
The	eory: 30 Hrs	Tutorial: 0	Practical: 0	Project: 0	Total Ho	urs: 30 Hrs
TE	XT BOOKS					
1.	S.Chand and Dr.R Company Limited	.S.Aggarwal, "Qu 2019.	antitative Aptitud	e for competitive	examination	s", S Chand and
2.	Nishit K.Sinha, "L	logical Reasoning	and Data Interpret	etation", Pearson	2021.	

15/09/2023 Dr.S.Anita

Dr.S.Anita Head/Training Dr. S. ANITA Professor and Head Department of Training, SONA COLLEGE OF TECHNOLOC 7, SALEM-636 005.

· ۲ ز

Programme:

B.E / B. Tech Regulations 2023

U23	OL1101	French			L	Т	P	J	C			
					1	0	0	0	1			
Course C	Dutcomes					*						
At the er	nd of the cour	se, the student will	be able to									
CO1:	Read Frence English sou	h phrases, Spell Frei nds	ich phonitis, pract	ice French acc	cents, d	ifferenti	ate Frei	nch and	1			
CO2:	Introduce of and respond	neself, talk about so politely in a conver	meone, ask others rsation	personal info	rmation	, identif	y an ob	ject, as	sk.			
CO3:	Read and w	rite a small annonce	ment, describe abo	out neighbour	s, write	a small	portrai	t				
CO4:	Express one justify a cho	e's wishes, talk about once, express one's p	ut one's hobbies, a references, write a	s hobbies, ask time, describe one's status of life in a blog, ices, write a list of needs								
CO5:	Suggest to c	to something, appre	ciate something, ta	ilk about a mo	ovie, wr	ite a pos	stal card	1				
		Co	urse Assessment i	netnoas								
		Direct					Indire	ct				
CIE test I CIE test I	I (30) I (30) II (40)		Total CIE: 100 mar Semester End Exar	ks mination: NIL		Cour	rse end	survey	7			
Unit 01:			N - 5 1	-			3	Hour				
Hr 2: Alp Hr 4: Nat Hr 6: Det	habets, Basic tionalities and finite articles,	wishes, self-introdu countries, colors, da numbers 0-20, write	ction, basic verbs: ays & months about one's ident	avoir and être	e							
Unit 02:	-						3	Hours	5			
Hr 12: Tl Unit 03: Hr 14: Ta	alk about acco	mmodation, conjuga	hatitic pronouns, s	elf-introductionir, possessive	on online adject	ives	3	Hour	5			
Hr 16: A Hr 18: Pl	djective's gen nysical descrip	der, noun's gender, potion, speak about ac	things in a room, s commodation, wri	imple preposi iting a self-po	tions trait				Ę			
Unit 04:							3	Hour	3			
Hr 20: H Hr 22: In Hr 24: N	obbies, conjug terrogative ad ear future tens	gation: vouloir, pouv jectives, daily activi se, talk about prefere	oir and devoir, con ties, time and seas ences, write a mail	nnected article ons, pronomin	es nal vert)S						
Unit 05:					×.		3	Hour	5			
Hr 26: O Hr 28: A Hr 30: Fr	uting activitie dverbs of freq rench arts, talk	s, conjugation: faire uency, family member about a film, and w	and sortir, demonspers, past tenses (p rrite a postal card	strative adject assé composé	ives and im	parfait)						
Theo	ory: 15 Hrs	Tutorial:	Practical:	Project:	-	Tota	l Hours	: 15 H	rs			
TEXT BO	OOKS											
1. TI	he course facu	lty will provide rele	vant audios, video	s, handouts ar	nd notes	5						
2. B	ooks : Saison	(Méthode de françai	s, cachier d'activit	tés)								
3. R	eference book	s : La conjugaison, l	Dondon, Echo									
				1	f.	Dr. Pro	M.R	HOD ENL	JGA lead,			
4	.8.2023 Versi	ion I.O Program	nme: B.E /B.Tech	B.E/	B Tech	Regulatio	of Hum ons 2023	anities of Ter	& La			

BE/B.Tech Regulations 2023 of Technology, SALEM - 63

TIOO	OI 1102	Germa	an	I	. T	P	J	C					
0230	JL1102		2	1	L 0	0	0	1					
Course C	Outcomes												
At the en	d of the cou	rse, the student wi	ll be able to										
CO1:	Use comm	on, everyday expre	ssions to greet others	and introduce th	emselves								
CO2:	Construct s	simple sentences /q	uestions.										
CO3:	Initiate and	sustain basic conv	ersation based on fai	nily, professions,									
CO4:	Hobbies an	d food.											
CO5:	Identify dif	Identify differences in using nouns based on gender.											
	1	C	ourse Assessment n	nethods									
		Direc	t			Indire	ct	a dia dia M					
CIE test I CIE test I CIE test I	(30) I (30) II (40)		Total CIE: 100 mar Semester End Exan	ks nination: NIL	Co	urse end survey							
Jnit 01:						3	B Hour	s					
• G	reeting and ta	aking leave, introdu	icing oneself, introdu	icing others									
Unit 02:						3	B Hour	s					
• A	lphabets, spe	lling, numbers											
Unit 03:						3	B Hour	s					
• A	ge, Telephon	e/mobile numbers,	Month, Date, Time										
Unit 04:						3	3 Hour	s					
• L	anguages, Fa	mily, Asking/givin	g information about	family members		1							
Unit 05:						3	3 Hour	s					
• H	obbies, Profe	essions						and a second					
Theo	ory: 15 Hrs	Tutorial:	Practical:	Project:	To	al Hour	s: 15 H	rs					
TEXT BO	OOKS					. 1							
1 N	etzwerk A1												

Dr. M.RENUGA, Professor & Head, Department of Humanities & Languages, Sona College of Technology, SALEM - 63

Programme: B.E / B. Tech

B.E / B. Tech Regulations 2023

U230L1103 Japanese L T P J C Course Outcomes At the end of the course, the student will be able to 1 0 0 0 1 CO1: Use words and phrases of greeting in Japanese, write the letters of the alphabet, identify names o objects and do a self-introduction using short and simple sentences CO2: Demonstrate the use of time-related words and verb conjunctions and make light conversation asking for directions and answering questions CO3: Use different kinds of verbs through the day and those used for giving things, and demonstrate the use of adjectives CO4: Express liking for the Japanese language, describe the locations of different things an demonstrate counting in Japanese CO4: Express liking for the Japanese language, describe the locations of different things an demonstrate counting in Japanese Indirect CD5: Make comparisons of stated things, express a willingness to go to Japan and use 'Te-form' verbs Course Assessment methods Direct Total CIE: 100 marks Course end survey Course end survey CIE test II (30) Total CIE: 100 marks Course end survey CIE test II (40) 3 Hours Hr 1-2: Greeting words and phrases; the Japanese alphabet: 104 Hiragana and 104 Katakana letters Hr 3-6: Self-introduction 3 Hours Hr 7-8: Asking			T				1	1	T
Course Outcomes 1 0 0 1 Course Outcomes At the end of the course, the student will be able to COI: Use words and phrases of greeting in Japanese, write the letters of the alphabet, identify names o objects and do a self-introduction using short and simple sentences CO2: Demonstrate the use of time-related words and verb conjunctions and make light conversation asking for directions and answering questions CON: Use different kinds of verbs through the day and those used for giving things, and demonstrate the use of adjectives CO3: Use different kinds of verbs through the day and those used for giving things, and demonstrate counting in Japanese Indirect CO4: Express liking for the Japanese language, describe the locations of different things an demonstrate counting in Japanese. Indirect CO5: Make comparisons of stated things, express a willingness to go to Japan and use 'Te-form' verbs Course Assessment methods C1E test II (30) Total CIE: 100 marks Course end survey C1E test II (40) Total CIE: 100 marks Semester End Examination: NIL Course end survey C1E test II (40) Total CIE: 100 marks Semester End Examination: NIL Semester End Examination: NIL Semester End Examination: NIL C1E test II (40) Total CIE: 100 marks Semester End Examination: NIL Semester End Examination: N	U23	OL1103	Japane	se			P	J	C
Course Outcomes At the end of the course, the student will be able to CO1: Use words and phrases of greeting in Japanese, write the letters of the alphabet, identify names o objects and do a self-introduction using short and simple sentences CO2: Demonstrate the use of time-related words and verb conjunctions and make light conversation asking for directions and answering questions CO3: Use different kinds of verbs through the day and those used for giving things, and demonstrate the use of adjectives CO4: Express liking for the Japanese language, describe the locations of different things an demonstrate counting in Japanese CO4: Express liking for the Japanese language, describe the locations of different things an demonstrate counting in Japanese CO4: Express liking for the Japanese language, describe the locations of different things an demonstrate counting in Japanese CO4: Express liking for the Japanese language, describe the locations of different things an demonstrate counting in Japanese CO4: Express liking for the Japanese CO4: Express liking for directions and naves repress a willingness to go to Japan and use 'Te-form' verbs C1: Express liking for directions when shopping Hr 1-2: Greeting words and phrases; the Japanese alphabet: 104 Hiragana and 104 Katakana letters Hr 3-4: Identifying words from pictures or objects shown Hr 5-6: Self-introduction Finit 02: 3 Hours Hr 13-14: Expressions to use ve						1 0	0	0	1
At the end of the course, the student will be able to CO1: Use words and phrases of greeting in Japanese, write the letters of the alphabet, identify names o objects and do a self-introduction using short and simple sentences CO2: Demonstrate the use of time-related words and verb conjunctions and make light conversation asking for directions and answering questions CO3:Use different thinds of verbs through the day and those used for giving things, and demonstrate the use of adjectives CO4: Express liking for the Japanese language, describe the locations of different things an demonstrate counting in Japanese CO5:Make comparisons of stated things, express a willingness to go to Japan and use 'Te-form' verbs Course Assessment methods CO1:CIE test II (30) CIE test II (30) CIE test II (30) CIE test II (30) CIE test II (40) Anit 01: CIE test II (40) Anit 01: CIE test II (40) Anit 02: The Course of physics or objects shown Hr 5-6:Self-introduction Hr 5-6:Self-introduction Hr 5-6:Self-introduction Hr 12:CIE test II (40) Hr 13:14:Expressions to use verbs from morning to night Hr 13:14:Expressions to use verbs from morning to night Hr 13:14:Expressions to use verbs from morning to night Hr 13:14:Expressions to use verbs from morning to night Hr 12:2:Clescribing the location of things (or where things are) Hr 13:2:Clescribing the location of things (or where things are) Hr 13:14:Expressions to use verbs from morning to night Hr 13:14:Expressions to use verbs from morning to night Hr 13:14:Expressions to use verbs from morning to night Hr 12:2:Clescribing the location of things (or where things are) Hr 12:2:Clescribing the location of the Japanese language Hr 21:2:2:Describing the location of things (or where things are) Hr 23:2:2:Japanese numbers and counting Int 05: Theory: 15 Hrs Tutorial: - Practical: - Project:- Total Hours: 15 Hrs TEXT BOOKS	Course C	Outcomes	1				-		
CO1: Use words and phrases of greeting in Japanese, write the letters of the alphabet, identify names o objects and do a self-introduction using short and simple sentences CO2: Demonstrate the use of time-related words and verb conjunctions and make light conversation asking for directions and answering questions CO3: Use different kinds of verbs through the day and those used for giving things, and demonstrate the use of adjectives CO4: Express liking for the Japanese language, describe the locations of different things an demonstrate counting in Japanese CO5: Make comparisons of stated things, express a willingness to go to Japan and use 'Te-form' verbs C04: Express liking for the Japanese language, describe the locations of different things an demonstrate counting in Japanese, methods CD5: Make comparisons of stated things, express a willingness to go to Japan and use 'Te-form' verbs C04: Express liking for the Japanese language, describe the locations of different things an demonstrate counting in Japanese, methods CD6: Make comparisons of stated things, express a willingness to go to Japan and use 'Te-form' verbs C04: Expressions for stated things, express a willingness to go to Japan and use 'Te-form' verbs C05: Make comparisons of stated things, express a willingness to go to Japan and use 'Te-form' verbs C1E test II (30) Total CIE: 100 marks Course end survey C1E test II (40)	At the er	d of the cou	rse, the student wi	ll be able to					
objects and do a self-introduction using short and simple sentences CO2: Demonstrate the use of time-related words and verb conjunctions and make light conversation asking for directions and answering questions CO3: Use different kinds of verbs through the day and those used for giving things, and demonstrate the use of adjectives CO4: Express liking for the Japanese language, describe the locations of different things an demonstrate counting in Japanese CO5: Make comparisons of stated things, express a willingness to go to Japan and use 'Te-form' verbs C05: Make comparisons of stated things, express a willingness to go to Japan and use 'Te-form' verbs C06: Express liking for the Japanese C07: Total CIE: 100 marks C1E test II (30) Total CIE: 100 marks C1E test III (40) Semester End Examination: NIL C01: Gurse Assessment methods HT 1-2: Greeting words and phrases; the Japanese alphabet: 104 Hiragana and 104 Katakana letters Hr 3-4: Identifying words from pictures or objects shown Hr Hr 7-8: Asking for directions when shopping Hr Hr 9-10: Time words and Verb Conjugations Hr Hr 11-12: Making light conversation 3 Hours Hr 12: Adjectives 3 Hours Hr 13-14: Expressions to use verbs from morning to ni	CO1:	Use words	and phrases of gree	eting in Japanese, w	rite the letters of	the alphab	et, identi	fy nam	es o
CO2: Demonstrate the use of time-related words and verb conjunctions and make light conversation asking for directions and answering questions CO3: Use different kinds of verbs through the day and those used for giving things, and demonstrate the use of adjectives CO4: Express liking for the Japanese language, describe the locations of different things an demonstrate counting in Japanese CO5: Make comparisons of stated things, express a willingness to go to Japan and use 'Te-form' verbs C05: Make comparisons of stated things, express a willingness to go to Japan and use 'Te-form' verbs C06: Make comparisons of stated things, express a willingness to go to Japan and use 'Te-form' verbs C07: Make comparisons of stated things, express a willingness to go to Japan and use 'Te-form' verbs C08: Direct Indirect C17: Total C1E: 100 marks Course end survey C16: test II (30) Semester End Examination: NIL Course end survey C16: test II (40) Total C1E: 100 marks Sthours Sthours Hr 1-2: Greeting words and phrases; the Japanese alphabet: 104 Hiragana and 104 Katakana letters Hr 1-2: Greeting words and Verb Conjugations Sthours Hr 7-8: Algent oversation Init 02: Sthours Sthours Hr 13-14:		objects and	do a self-introduct	ion using short and	simple sentences				
asking for directions and answering questions CO3: Use different kinds of verbs through the day and those used for giving things, and demonstrate the use of adjectives CO4: Express liking for the Japanese language, describe the locations of different things an demonstrate counting in Japanese CO5: Make comparisons of stated things, express a willingness to go to Japan and use 'Te-form' verbs CO5: Make comparisons of stated things, express a willingness to go to Japan and use 'Te-form' verbs CO5: Make comparisons of stated things, express a willingness to go to Japan and use 'Te-form' verbs CO5: Make comparisons of stated things, express a willingness to go to Japan and use 'Te-form' verbs C1E test II (30) Total CIE: 100 marks C1E test III (40) Semester End Examination: NIL Init 01: Total CIE: 100 marks F1 -2: Greeting words and phrases; the Japanese alphabet: 104 Hiragana and 104 Katakana letters Hr 1-2: Greeting words and phrases; the Japanese alphabet: 104 Hiragana and 104 Katakana letters Hr 3-4: Identifying words from pictures or objects shown Hr 5-6: Self-introduction Init 02: 3 Hours Hr 1-12: Making light conversation Hir 11-12: Init 03: 3 Hours Hr 13-14: Expressions to use verbs from morning to night	CO2:	Demonstra	te the use of time-re	elated words and ve	rb conjunctions a	nd make li	ight conv	versatic	n
CO3: Ose uniferint Kinds of Verbs through the day and those used for giving unings, and demonstrate ounting in Japanese CO4: Express liking for the Japanese language, describe the locations of different things an demonstrate counting in Japanese CO5: Make comparisons of stated things, express a willingness to go to Japan and use 'Te-form' verbs Course Assessment methods Course and survey Course and survey Course and survey Total CIE: 100 marks Semester End Examination: NIL Course ford incretions of promotype products of objects shown HT 1-2: Asking for directions wh	CO1.	Lise differe	infections and answ	rening questions	has used for give	ing things	and day	nonstra	to
CO4: Express liking for the Japanese language, describe the locations of different things an demonstrate counting in Japanese CO5: Make comparisons of stated things, express a willingness to go to Japan and use 'Te-form' verbs CO5: Make comparisons of stated things, express a willingness to go to Japan and use 'Te-form' verbs C06: Indirect C17: Indirect C18: Indirect C19: Total C1E: 100 marks C11: Semester End Examination: NIL C0: Course end survey C11: Semester End Examination: NIL C11: Course end survey C12: Greeting words and phrases; the Japanese alphabet: 104 Hiragana and 104 Katakana letters Hr 3-4: Identifying words from pictures or objects shown Hr 5-6: Self-introduction Init 02: 3 Hours Hr 1-12: Making light conversation Init 03: 3 Hours Hr 13-14: Expressions to use verbs from morning to night Hr 13-14: Expressions to use verbs from morning to night Hr 13-14: Expressions and counting Init 03: 3 Hours Hr 12-20: Ways to show liking for the Japanese l	CO3:	the use of a	diectives	ilough the day and t	nose used for giv	ing unigs.	, and den	1011511.0	le
CO: Indirect in Japanese CO: Make comparisons of stated things, express a willingness to go to Japan and use 'Te-form' verbs Course Assessment methods Direct Indirect Indirect CIE test II (30) Total CIE: 100 marks Semester End Examination: NIL Course end survey Int 01: 3 Hours Hr 1-2: Greeting words and phrases; the Japanese alphabet: 104 Hiragana and 104 Katakana letters Hr 3-4: Identifying words from pictures or objects shown Hr 5-6: Self-introduction init 02: Hr 9-10: Time words and Verb Conjugations Hr 1-12: Making light conversation init 03: Hr 13-14: Expressions to use verbs from morning to night Hr 15-16: Verbs used for giving things Hr 12-22: Describing the location of things (or where things are) Hr 23-24: Japanese numbers and counting init 05: 3 Hours Hr 25-26: Making comparisons Hr 27-28: Expressions wishing for something, like 'I want to go to Japan!' Hr 23-24: Japanese language available in the college library. 1. The course faculty will provide handouts / notes / course material. 2. Books on Basic Japanese language available in the college library.<	CO4·	Express li	king for the lan:	mese language de	scribe the local	tions of a	lifferent	thing	an
COS: Make comparisons of stated things, express a willingness to go to Japan and use 'Te-form' verbs Course Assessment methods Indirect Indirect Course Assessment methods Course end survey Course end survey Assessment methods: The Assessment methods: Assessment methods: The Assessment protection words and phrases; the Japanese alphabet: 104 Hiragana and 104 Katakana letters Init 02: Stacking for directions	CO1.	demonstrat	e counting in Japar	iese				umg	
Course Assessment methods Direct Indirect Course Assessment methods Direct Indirect Course Assessment methods Course Assessment methods Course End Examination: NIL Course end survey The test III (40) Course end survey Thill test in Course of Self-introduction 3 Hours HT 7-8: Asking for directions when shopping HT 7-8: Asking for directions when shopping HT 7-8: Asking for directions when shopping HT 1-12: Making light conversation Init 02: 3 Hours HT 1-12: Making light conversation 3 Hours HT 12-2: Describing the location of things (or	CO5:	Make com	parisons of stated th	nings, express a will	ingness to go to .	apan and	use 'Te-f	form' v	erbs
Direct Indirect CIE test I (30) Total CIE: 100 marks Course end survey CIE test III (40) Semester End Examination: NIL Course end survey Init 01: 3 Hours 3 Hours Hr 1-2: Greeting words and phrases; the Japanese alphabet: 104 Hiragana and 104 Katakana letters 3 Hours Hr 3-4: Identifying words from pictures or objects shown 3 Hours Hr 5-6: Self-introduction 3 Hours Hr 7-8: Asking for directions when shopping 3 Hours Hr 1-12: Making light conversation 3 Hours Hr 13-14: Expressions to use verbs from morning to night 3 Hours Hr 15-16: Verbs used for giving things 3 Hours Hr 11-14: Adjectives 3 Hours Hr 19-20: Ways to show liking for the Japanese language 3 Hours Hr 23-24: Japanese numbers and counting 3 Hours Hr 22-30: Using 'Te-form' Verb 3 Hours Theory: 15 Hrs Tutorial: Practical: Theory: 15 Hrs Tutorial: Project: The course faculty will provide handouts / notes / course mat			C	ourse Assessment	nethods	î			
CIE test I (30) Total CIE: 100 marks Course end survey CIE test III (40) Semester End Examination: NIL. Course end survey Init 01: 3 Hours Hr 1-2: Greeting words and phrases; the Japanese alphabet: 104 Hiragana and 104 Katakana letters Hr 3-4: Identifying words from pictures or objects shown Hr 3-4: Identifying words from pictures or objects shown 3 Hours Hr 5-6: Self-introduction 3 Hours Hr 7-8: Asking for directions when shopping 3 Hours Hr 9-10: Time words and Verb Conjugations Hr 11-12: Making light conversation Init 03: H 13-14: Expressions to use verbs from morning to night Hr 15-16: Verbs used for giving things H 13-14: Expressions to use verbs from morning to night Hr 19-20: Ways to show liking for the Japanese language H 12-22: Describing the location of things (or where things are) Hr 12-22: Describing the location of things (or where things are) H 23-24: Japanese numbers and counting Init 05: 3 Hours Hr 27-28: Expressions wishing for something, like 'I want to go to Japan!' Hr 23-20: Using 'Te-form' Verb Theory: 15 Hrs Tutorial: - Practical: Project: Total Hours: 15 Hrs TEXT BOOKS	8		Direc	t			Indire	ct	
Cite test II (30) Semester End Examination: NIL Course end survey Cite test III (40) 3 Hours Arrison Course end survey 3 Hours Hr 1-2: Greeting words and phrases; the Japanese alphabet: 104 Hiragana and 104 Katakana letters 3 Hours Hr 3-4: Identifying words from pictures or objects shown 3 Hours Hr 5-6: Self-introduction 3 Hours Init 02: 3 Hours Hr 7-8: Asking for directions when shopping 3 Hours Hr 1-12: Making light conversation 3 Hours Init 03: 3 Hours Hr 13-14: Expressions to use verbs from morning to night Hr 15-16: Verbs used for giving things Hr 17-18: Adjectives 3 Hours Hr 19-20: Ways to show liking for the Japanese language Hr 21-22: Describing the location of things (or where things are) Hr 22-22: Describing the location of things (or where things are) 3 Hours Hr 25-26: Making comparisons Hr 27-28: Expressions wishing for something, like 'I want to go to Japan!' Hr 29-30: Using 'Te-form' Verb Theory: 15 Hrs Tutorial: Project: Total Hours: 15 Hrs TEXT BOOKS 1. The course faculty will provide ha	CIE test I	(30)		Total CIE: 100 mai	ks				
CIE test III (40) 3 Hours Arright of the form of the standard	CIE test I	I (30)		Semester End Eva	mination: NIL	Co	urse end	survey	/
init 01: 3 Hours Hr 1-2: Greeting words and phrases; the Japanese alphabet: 104 Hiragana and 104 Katakana letters Hr 3-4: Identifying words from pictures or objects shown Hr 3-4: Identifying words for pictures or objects shown 3 Hours Hr 3-4: Identifying words for directions when shopping 3 Hours Hr 7-8: Asking for directions when shopping 3 Hours Hr 7-8: Asking for directions when shopping 3 Hours Hr 11-12: Making light conversation 3 Hours Init 03: 3 Hours Hr 13-14: Expressions to use verbs from morning to night 3 Hours Hr 13-14: Expressions to use verbs from morning to night 3 Hours Hr 17-18: Adjectives 3 Hours Init 04: 3 Hours Hr 21-22: Describing the location of things (or where things are) 3 Hours Hr 22-26: Making comparisons 3 Hours Hr 25-26: Making comparisons 3 Hours Hr 22-30: Using 'Te-form' Verb Theory: 15 Hrs Tutorial: Theory: 15 Hrs Tutorial: Practical: Project: Total Hours: 15 Hrs Tutorial: Practical: Project: Total Hours: 15 Hrs I The course faculty will provide handouts / notes	CIE test I	II (40)		bennester Ena Exa				,	
Hr 1-2: Greeting words and phrases; the Japanese alphabet: 104 Hiragana and 104 Katakana letters Hr 3-4: Identifying words from pictures or objects shown Hr 5-6: Self-introduction 7 Nit 02: 3 Hours Hr 7-8: Asking for directions when shopping Hr 9-10: Time words and Verb Conjugations Hr 11-12: Making light conversation 7 Nit 03: 3 Hours Hr 13-14: Expressions to use verbs from morning to night Hr 15-16: Verbs used for giving things Hr 17-18: Adjectives 7 Nit 04: 3 Hours Hr 19-20: Ways to show liking for the Japanese language Hr 12-22: Describing the location of things (or where things are) Hr 23-24: Japanese numbers and counting 1 Nit 05: 3 Hours Hr 25-26: Making comparisons Hr 27-28: Expressions wishing for something, like 'I want to go to Japan!' Hr 29-30: Using 'Te-form' Verb Theory: 15 Hrs Tutorial: Practical: Project: Total Hours: 15 Hrs TEXT BOOKS 1 . The course faculty will provide handouts / notes / course material. 2 . Books on Basic Japanese language available in the college library.	Init 01:						3	B Hour	5
In 1 - 2: Identifying words from pictures or objects shown Hr 3-4: Identifying words from pictures or objects shown Hr 5-6: Self-introduction Init 02: 3 Hours Hr 7-8: Asking for directions when shopping Hr 7-8: Asking for directions when shopping Hr 9-10: Time words and Verb Conjugations Hr 11-12: Making light conversation Init 03: 3 Hours Hr 13-14: Expressions to use verbs from morning to night Hr 15-16: Verb used for giving things Hr 17-18: Adjectives Jnit 04: 3 Hours Hr 19-20: Ways to show liking for the Japanese language Hr 12-22: Describing the location of things (or where things are) Hr 23-24: Japanese numbers and counting Init 05: 3 Hours Hr 25-26: Making comparisons Hr 27-28: Expressions wishing for something, like 'I want to go to Japan!' Hr 29-30: Using 'Te-form' Verb Theory: 15 Hrs Tutorial: Practical: Project: Total Hours: 1. The course	Hr 1.2.0	reeting word	s and phrases the	lananese alnhahet: 1	04 Hiragana and	104 Katak	ana lette	rs	
Init 02: 3 Hours Init 02: 3 Hours Init 02: 3 Hours If 7-8: Asking for directions when shopping 3 Hours Hr 9-10: Time words and Verb Conjugations 3 Hours Hr 11-12: Making light conversation 3 Hours Init 03: 3 Hours Hr 13-14: Expressions to use verbs from morning to night Hr 13-14: Expressions to use verbs from morning to night Hr 15-16: Verbs used for giving things Hr 17-18: Adjectives Janit 04: 3 Hours Hr 19-20: Ways to show liking for the Japanese language Hr 121-22: Describing the location of things (or where things are) Hr 23-24: Japanese numbers and counting 3 Hours Init 05: 3 Hours Hr 27-28: Expressions wishing for something, like 'I want to go to Japan!' Hr 29-30: Using 'Te-form' Verb Theory: 15 Hrs Theory: 15 Hrs Tutorial: Project: Total Hours: 15 Hrs TEXT BOOKS 1 The course faculty will provide handouts / notes / course material. 2 Books on Basic Japanese language available in the college library. 4.1	Ur 3_A. L	dentifying word	rds from nictures (r objects shown	o i mugunu una	10 T Trutun	unu rotte		
Init 02: 3 Hours Init 02: 3 Hours Init 02: 3 Hours Hr 7-8: Asking for directions when shopping 3 Hours Hr 9-10: Time words and Verb Conjugations 3 Hours Hr 11-12: Making light conversation 3 Hours Init 03: 3 Hours Hr 13-14: Expressions to use verbs from morning to night 3 Hours Hr 15-16: Verbs used for giving things 3 Hours Hr 17-18: Adjectives 3 Hours Jnit 04: 3 Hours Hr 19-20: Ways to show liking for the Japanese language 3 Hours Hr 12-22: Describing the location of things (or where things are) 3 Hours Hr 23-24: Japanese numbers and counting 3 Hours Init 05: 3 Hours Hr 27-28: Expressions wishing for something, like 'I want to go to Japan!' Hr 29-30: Using 'Te-form' Verb Theory: 15 Hrs Tutorial: Practical: Project: Total Hours: 15 Hrs Tutorial: Project: Total Hours: 15 Hrs 1 The course faculty will provide handouts / notes / course material. 2 Books on Basic Japanese language available in the college library. <td>Hr 5-6: S</td> <td>elf-introducti</td> <td>ion</td> <td>n objects shown</td> <td></td> <td></td> <td></td> <td></td> <td></td>	Hr 5-6: S	elf-introducti	ion	n objects shown					
Hr 7-8: Asking for directions when shopping Hr 9-10: Time words and Verb Conjugations Hr 11-12: Making light conversation Init 03: Hr 13-14: Expressions to use verbs from morning to night Hr 15-16: Verbs used for giving things Hr 17-18: Adjectives Jnit 04: 17-20: Ways to show liking for the Japanese language Hr 21-22: Describing the location of things (or where things are) Hr 23-24: Japanese numbers and counting Init 05: 3 Hours Hr 27-28: Expressions wishing for something, like 'I want to go to Japan!' Hr 29-30: Using 'Te-form' Verb Theory: 15 Hrs Tutorial: Practical: Project: Total Hours: 15 Hrs TEXT BOOKS 1 1 1 2 Books on Basic Japanese language available in the college library.	Jnit 02:						3	B Hour	5
Hr 9-10: Time words and Verb Conjugations Hr 11-12: Making light conversation Init 03: Hr 13-14: Expressions to use verbs from morning to night Hr 13-14: Expressions to use verbs from morning to night Hr 15-16: Verbs used for giving things Hr 15-16: Verbs used for giving things Hr 17-18: Adjectives Init 04: Hr 19-20: Ways to show liking for the Japanese language Hr 21-22: Describing the location of things (or where things are) Hr 23-24: Japanese numbers and counting Init 05: Hr 25-26: Making comparisons Hr 27-28: Expressions wishing for something, like 'I want to go to Japan!' Hr 29-30: Using 'Te-form' Verb Theory: 15 Hrs Tutorial: Practical: Project: Total Hours: 15 Hrs TEXT BOOKS 1. The course faculty will provide handouts / notes / course material. 2. Books on Basic Japanese language available in the college library.	Hr 7-8: A	sking for dir	ections when shopp	oing	÷				
Hr 11-12: Making light conversation Init 03: Init 03: Hr 13-14: Expressions to use verbs from morning to night Hr 13-14: Expressions to use verbs from morning to night Hr 15-16: Verbs used for giving things Hr 15-16: Verbs used for giving things Hr 17-18: Adjectives Juit 04: Hr 19-20: Ways to show liking for the Japanese language Hr 19-20: Ways to show liking for the Japanese language Hr 21-22: Describing the location of things (or where things are) Hr 23-24: Japanese numbers and counting Init 05: Hr 25-26: Making comparisons Hr 27-28: Expressions wishing for something, like 'I want to go to Japan!' Hr 29-30: Using 'Te-form' Verb Theory: 15 Hrs Tutorial: Practical: Project: Total Hours: 15 Hrs TEXT BOOKS 1. 1. The course faculty will provide handouts / notes / course material. 2. Books on Basic Japanese language available in the college library.	Hr 9-10:	Time words a	and Verb Conjugati	ions					
Init 03: 3 Hours Hr 13-14: Expressions to use verbs from morning to night Hr 13-14: Expressions to use verbs from morning to night Hr 13-16: Verbs used for giving things 3 Hours Hr 15-16: Verbs used for giving things 3 Hours Hr 17-18: Adjectives 3 Hours Jnit 04: 3 Hours Hr 19-20: Ways to show liking for the Japanese language 3 Hours Hr 21-22: Describing the location of things (or where things are) Hr 23-24: Japanese numbers and counting Init 05: 3 Hours Hr 25-26: Making comparisons 3 Hours Hr 27-28: Expressions wishing for something, like 'I want to go to Japan!' Hr 29-30: Using 'Te-form' Verb Theory: 15 Hrs Tutorial: Practical: Project: Total Hours: 15 Hrs Text BOOKS 1. The course faculty will provide handouts / notes / course material. 2. Books on Basic Japanese language available in the college library. 4.2 or 10. 1.2 or 10.	Hr 11-12	: Making ligh	it conversation						
Hr 13-14: Expressions to use verbs from morning to night Hr 15-16: Verbs used for giving things Hr 15-16: Verbs used for giving things Hr 17-18: Adjectives Juit 04: Hr 19-20: Ways to show liking for the Japanese language Hr 21-22: Describing the location of things (or where things are) Hr 23-24: Japanese numbers and counting Juit 05: Hr 25-26: Making comparisons Hr 27-28: Expressions wishing for something, like 'I want to go to Japan!' Hr 29-30: Using 'Te-form' Verb Theory: 15 Hrs Tutorial: Practical: Project: Total Hours: 15 Hrs TEXT BOOKS 1. The course faculty will provide handouts / notes / course material. 2. Books on Basic Japanese language available in the college library.	Jnit 03:						3	B Hour	5
Hr 15-16: Verbs used for giving things Hr 17-18: Adjectives Juit 04: Hr 19-20: Ways to show liking for the Japanese language Hr 21-22: Describing the location of things (or where things are) Hr 23-24: Japanese numbers and counting Juit 05: Hr 25-26: Making comparisons Hr 27-28: Expressions wishing for something, like 'I want to go to Japan!' Hr 29-30: Using 'Te-form' Verb Theory: 15 Hrs Tutorial: Practical: Project: Total Hours: 15 Hrs TEXT BOOKS 1. The course faculty will provide handouts / notes / course material. 2. Books on Basic Japanese language available in the college library.	Hr 13-14	: Expressions	to use verbs from	morning to night					
Hr 17-18: Adjectives 3 Hours Init 04: 3 Hours Hr 19-20: Ways to show liking for the Japanese language 3 Hours Hr 21-22: Describing the location of things (or where things are) 3 Hours Hr 23-24: Japanese numbers and counting 3 Hours Vnit 05: 3 Hours Hr 25-26: Making comparisons 3 Hours Hr 27-28: Expressions wishing for something, like 'I want to go to Japan!' Hr 29-30: Using 'Te-form' Verb Theory: 15 Hrs Tutorial: Practical: Project: Total Hours: 15 Hrs Tutorial: Project: Total Hours: 15 Hrs TEXT BOOKS 1. The course faculty will provide handouts / notes / course material. 2. Books on Basic Japanese language available in the college library. 4.2 or or of the course faculty of the course faculty is the course faculty is the college library.	Hr 15-16	: Verbs used	for giving things						
Init 04: 3 Hours Hr 19-20: Ways to show liking for the Japanese language Hr 21-22: Describing the location of things (or where things are) Hr 23-24: Japanese numbers and counting 3 Hours Init 05: 3 Hours Hr 25-26: Making comparisons 3 Hours Hr 27-28: Expressions wishing for something, like 'I want to go to Japan!' Hr 29-30: Using 'Te-form' Verb Theory: 15 Hrs Tutorial: Practical: Project: Total Hours: 15 Hrs Text BOOKS 1. The course faculty will provide handouts / notes / course material. 2. Books on Basic Japanese language available in the college library. 4.2	Hr 17-18	: Adjectives							
Hr 19-20: Ways to show liking for the Japanese language Hr 21-22: Describing the location of things (or where things are) Hr 23-24: Japanese numbers and counting Solution Solution Solution Hr 25-26: Making comparisons Hr 27-28: Expressions wishing for something, like 'I want to go to Japan!' Hr 29-30: Using 'Te-form' Verb Theory: 15 Hrs Tutorial: Practical: Project: Total Hours: 15 Hrs TEXT BOOKS 1. The course faculty will provide handouts / notes / course material. 2. Books on Basic Japanese language available in the college library.	Jnit 04:		1				3	3 Hour	5
Hr 21-22: Describing the location of things (or where things are) Hr 23-24: Japanese numbers and counting 3 Hours Hr 25-26: Making comparisons Hr 27-28: Expressions wishing for something, like 'I want to go to Japan!' Hr 29-30: Using 'Te-form' Verb Theory: 15 Hrs Tutorial: Practical: Project: Total Hours: 15 Hrs TEXT BOOKS 1. The course faculty will provide handouts / notes / course material. 2. Books on Basic Japanese language available in the college library.	Hr 19-20	: Ways to sho	ow liking for the Ja	panese language					
Hr 23-24: Japanese numbers and counting 3 Hours Init 05: 3 Hours Hr 25-26: Making comparisons 3 Hours Hr 27-28: Expressions wishing for something, like 'I want to go to Japan!' 3 Hours Hr 29-30: Using 'Te-form' Verb 5 Hrs Theory: 15 Hrs Tutorial: Practical: Project: Total Hours: 15 Hrs Total Hours: 15 Hrs TEXT BOOKS 1. The course faculty will provide handouts / notes / course material. 2. Books on Basic Japanese language available in the college library. 4.2 - 4.2 -	Hr 21-22	: Describing	the location of thin	gs (or where things	are)				
Init 05: 3 Hours Hr 25-26: Making comparisons 3 Hours Hr 27-28: Expressions wishing for something, like 'I want to go to Japan!' 4 Hr 29-30: Using 'Te-form' Verb Theory: 15 Hrs Tutorial: Practical: Project: TEXT BOOKS 1. The course faculty will provide handouts / notes / course material. 2. Books on Basic Japanese language available in the college library. 4.2 4.2	Hr 23-24	: Japanese nu	mbers and counting	g					
Hr 25-26: Making comparisons Hr 27-28: Expressions wishing for something, like 'I want to go to Japan!' Hr 29-30: Using 'Te-form' Verb Theory: 15 Hrs Tutorial: Project: Total Hours: 15 Hrs TEXT BOOKS 1. The course faculty will provide handouts / notes / course material. 2. Books on Basic Japanese language available in the college library.	Jnit 05:							3 Hour	5
Hr 27-28: Expressions wishing for something, like 'I want to go to Japan! Hr 29-30: Using 'Te-form' Verb Tutorial: Practical: Project: Total Hours: 15 Hrs TEXT BOOKS 1. The course faculty will provide handouts / notes / course material. 2. Books on Basic Japanese language available in the college library.	Hr 25-26	: Making con	nparisons	1	an to Immon 12				
Theory: 15 Hrs Tutorial: Practical: Project: Total Hours: 15 Hrs TEXT BOOKS 1. The course faculty will provide handouts / notes / course material. 2. Books on Basic Japanese language available in the college library.	Hr 27-28	: Expressions	wisning for somet	hing, like 1 want to	go to Japan!				
Theory: 15 Hrs Tutorial: Practical: Project: Total Hours: 15 Hrs TEXT BOOKS 1. The course faculty will provide handouts / notes / course material. 2. Books on Basic Japanese language available in the college library.	HF 29-30	: Using Te-I		D (1	D		-1 77	4F 11	
TEXT BOOKS 1. The course faculty will provide handouts / notes / course material. 2. Books on Basic Japanese language available in the college library.	Theo	ory: 15 Hrs	Tutorial:	Practical:	Project:	lot	al Hours	5: 15 H	rs
 The course faculty will provide handouts / notes / course material. Books on Basic Japanese language available in the college library. 	TEXT BO	DOKS				аг. С		3	
2. Books on Basic Japanese language available in the college library.	1. T	he course fac	alty will provide ha	indouts / notes / cou	rse material.				
12	2. B	ooks on Basic	c Japanese language	e available in the co	llege library.				
			4					12~	-

Dr. M.RENUGA, Professor & Head,

- 4

U230	OL1104	Korea	n		L	Τ	Р	J	C
525		Korea			1	0	0	0	1
Course C	outcomes								
At the en	d of the cours	se, the student will	be able to					•••••	
CO1:	Use single v	owels and consona	ints syllable structu	ire.					
CO2:	Greet others	and introduce ther	nselves.	Notes and the second					
CO3:	Identify time	e, date and week	0						
CO4:	Explain loca	tion and places							
CO5:	Construct si	mple sentences / qu	lestions.						
		Co	ourse Assessment	methods		8			
		Direct			1.00		Indire	ct	
CIE test I	(30)		Total CIE: 100 man	rks					and the second secon
CIE test I	I (30)		Semester End Exa	mination: NIL		Cour	se end	survev	
CIE test I	II (40)	24	- Shirter Dia DAu					-)	
Unit 01: H	Hangeul						3	Hours	3
Single Vo	owels & Conso	onants Syllable Stru	ucture			0			
Tense Co	nsonants								
Aspirated	d Consonants								
Double V	/owels		×						
Final Con	nsonants								
Double F	inal Consonan	its							
Liaison									
Unit 02: In	ntroduction						3	Hours	5
Greetings									
l alking a	bout names								
Sell-Intro	duction	momhoro							
muoducn	ig my family	members							
Unit 03:	Time and Da	ate					3	Hours	6
Talkin	ng about locat	ion	>	2					
Talkin	ng about dates	and days of the we	ek						
Talkir	ng about doing	g something in the	past						
Unit 04:	Location and I	Places					3	Hours	6
Talking a	bout location								2
Talking a	bout doing son	mething at a location	on	*					
Talking a	bout direction	S					·		
Unit 05: Fi	uture						3	Hours	6
Talkir	ng about doing	something in the	future						
Talkin	ng about plans	for the future							
Talkir	ng about hope	for the future							
Theo	ry: 15 Hrs	Tutorial:	Practical:	Project:	1 7	Fotal	Hours	: 15 H	rs
REFERE	NCES			Г. 					
1	/itamin Korear	n - 1						r	
L							٥	200	1
							a.	201	/
					-		H	HOD	
					, D	r. 1	M.KE	NU	GA,
			ý.			Prot	ressor	& He	ad,
				De	partme	nt of	Humar	nities &	k Lan
<u>.</u>					Sona	Col	lege o	T Tech	1000

4.8.2023 Version 1.0

Programme: B. E / B. Tech

B.E / B. Tech Regulations 202336 1995.

Sona College of Technology, Salem (An Autonomous Institution) Courses of Study for B.E/B.Tech. Semester II under Regulations 2023 (CBCS) Branch: Mechatronics Engineering

S.No	Course Code	Course Title	L	T	Р	J	С	Category	Total Contact Hours	Course Type*
		Theory courses	5					a 1. A		
1.	U23ENG201A	Technical English	2	0	0	0	2	HS	30	T
2.	U23MAT202C	Vector Calculus and Differential Equations	3	1	0	0	4	BS	60	TT
3.	U23PHY203G	Physics of Electronic Devices	2	0	0	0	2	BS	30	Т
4.	U23CHE204D	Materials Chemistry	3	0	0	0	3	BS	45	Т
5.	U23MC201	Engineering Mechanics-Statics and Dynamics	3	0	0	0	3	ES	45	Т
6.	U23MC202	Basic Electrical Engineering	3	0	0	0	3	ES	45	T
7.	U23TAM201	தமிழரும் தொழில்நட்பமும் / Tamils and Technology	1	0	0	0	1	HS	15	Т
8.	U23GE201	Basic Aptitude- II	2	0	0	0	0	AC	30	Т
		Practical course	es	L						
9.	U23WPL214	Workshop Practice	0	0	2	0	1	ES	30	L
10.	U23MC203	Basic Electrical Engineering and Devices Laboratory	0	0	4	0	2	ES	60	L
			1	Fota	l Cre	dits	21			
		Optional Language Co	ourse	s**						
11.	U23OL1201	French-II							15	T
12.	U23OL1202	German-II						OI	15	Т
13.	U23OL1203	Japanese-II	1	0	0	0	1		15	Т
14.	U23OL1204	Korean-II					20 F		15	Т

*T- Theory, TT- Theory with Tutorial, TL- Theory with Laboratory, TP- Theory with Project, TLP- Theory with Laboratory and Project, L-Laboratory, LT- Laboratory with Theory, LP- Laboratory with Project

**Students may opt for foreign languages viz., German/French/Japanese/Korean with additional one credit (Not accounted for CGPA calculation)

Approved By

n-hm	RECONTIN	nivekungu	T. Allan T	AB:8-
Chairperson, Science and Humanities BoS	Chairperson, Mechatronics BoS	Member Secretary, Academic Council	Dean-Academics	Chairperson, Academic Council & Principal
Dr.M.Renuga	Dr.P.Suresh	Dr.R.Shivakumar	Dr.J.Akilandeswari	Dr.S.R.R.Senthil Kumar

Copy to:-

HOD/ Mechatronics, Second Semester B.E. Mechatronics Students and Staff, COE

PRINCIPAL SONA COLLEGE OF TECHNOLOGY SALEM-636 005

[
TT)2EN	IC201				T	echnical I	English	DOGE	011.111	L	T	P	J	C
0.	2JEI	0201	I.A.	(Con	ECE	ADS, E, EEE	, AIML, B E, MCT, F	ме, CS Г, IT Br	anches)	, CIVIL,	2	0	0	0	2
Cours	se Oi	utcom	nes									I			l
At the	e enc	l of th	he cou	rse, the	studer	nt wil	ll be able	to					а 1		
CO	l:	Fran fluer	ne sen ncy	tences o	correctl	y, bot	h in writt	en and	spoken	forms o	of langua	age wit	h accura	acy and	
CO	2:	Deve	elop e	ffective	readin	g skil	ls and rei	nforce l	anguag	e skills	require	d for us	sing gra	mmar a	and
		build	ding v	ocabula	ary		8				-		00		
COS	3:	Orga	inise i	deas an	d suppo	orting	argumen	ts logic	ally						
CO	1:	Deve	elop sl	cills for	writing	g conv	versations	, propo	sals, rep	ports an	d transc	oding			
COS	5:	Read	l for u	ndersta	nding a	nd in	terpreting	inform	ation an	nd to ut	ilise info	ormatio	n accor	dingly	
Pre-re	auis	ite:										2			
	1	Knor	wloda	andI	ndorot	andin	a of Crow								
	•	Fund	lamen	tal Lan	guage S	andin Skills	(LSRW)	nmar							
							CO/PO.	PSO M	lapping	,					
			(3/2	/1 indic	ates the	e stre	ngth of co	orrelatio	(n) 3-Sti	, 10110 2-	Medium	n 1-We	ak		
]	Program	nme Oı	utcom	nes (POs)	and Pro	oramn	ne Spec	ific Outo	nomes (PS()e)		
COs	PC	01	PO2	PO3	PO4	PO	5 PO6	PO7	PO8	P09	PO10	PO11	PO12	PSO1	PSO2
CO1	2		1	2	3	2	3	3	3	3	3	3	3	3	3
CO2	2		2	2	3	2	3	3	3	3	3	3	3	3	3
СОЗ	3		2	2	3	2	3	3	3	3	3	3	3	3	3
CO4	3		3	2	3	2	3	3	3	3	3	3	3	3	3
CO5	3		3	2	3	2	3	3	3	3	3	3 (3	3	3
						Co	ourse Ass	essmer	t metho	ods					
						Direct	•				and the second		Indir	act	
CIE tes CIE tes CIE tes Assign	st I (8 st II (st III st III	8) (8) (8) it/sem	ninar/Q	Quiz (5)	1		Objective Attendar Total CIE Semester	es Test (nce (5) E: 40 ma End Ex	(6) urks kaminat	ion (60)	Cou	urse end	survey	7
Jnit 01:	:					1					· · · · ·		,	6 Hour	s
•	Con Rec Con Rea	npara ommo versa ding	tive ad endati tion w passag	djective ons vriting ges for s	s	infor	mation tra	ansfer		e ,			-1		

Unit 02	2:			•		6 Hours
•	Prepositions, adve	erbs	· · · ·			-
	Reading passage y	with multiple choi	as questions reading for	r gist and read	ing for an	
Unit 0	3:	with multiple choi	ce questions, reading to	or gist and read	ing for spe	6 Hours
•	Collocations, dire	ct and indirect spe	ech		l	
•	Memo	P				
•	Proposal: establis	hing a lab, introdu	icing a subject in the cu	rriculum, traini	ng progra	mme for students
•	Short reading pass	sage: gap-filling e	xercise related to gram	nar	01-0-	
Unit 04	1:	-		5		6 Hours
•	Cause and effect					
•	Technical report v	vriting – feasibilit	y report, accident report	t, survey report		
•	Short reading pass	sages for sentence	matching exercises, pic	king out speci	fic inform	ation in a short
	text			C 1		
Unit 05	5:					6 Hours
•	Pronouns			n an	I	
•	Transcoding - bar	chart, pie chart, t	abular column			
T	heory: 30 Hrs	Tutorial:	Practical: -	Project:	Total	Hours: 30 Hrs
TEXT	BOOKS					
1.	Technical English	I & II, Dr. M. Rei	nuga et al. Sonaversity,	2016		
2.	Extensive Readin	g	· · · · · · · · · · · · · · · · · · ·			
	1. Who M	oved my Cheese?	- Spencer Johnson-G.	P. Putnam's So	ns	
	2. Discove	er the Diamond in	You - Arindham Chau	dhari – Vikas I	Publishing	House Pvt. Ltd.
	3. Grandn	na's Bag of Storie	s – Sudha Murthy – Per	nguin Random	House, In	dia.
REFE	RENCES					
1.	Norman Whitby, E University Press, 2	Business Benchma 006.	rk – Pre-Intermediate to	Intermediate,	Students	Book, Cambridge
2.	A Course in Comm by Cambridge Uni	nunication Skills, versity Press India	P. Kiranmai Dutt, Geetl a Pvt. Ltd.	ha Rajeevan, C	. L. N. Pra	akash, published

HOD 13/2/24.

Dr. M.RENUGA, Professor & Head, Department of Humanities & Languages, College of Technology, M - 63

Sona College of Technology

Department of Mathematics

U23M	AT202					FC	TIAT	IONO					L	Т	P	J	(
U23MAT202C Common to CIVIL, MECHANICAL and MI									ECHAT	RON	ICS	3	1	0	0	4	
Course	e Outo	comes				÷			iq								
At the	end of	the co	ourse, t	he stud	ent wi	ll be a	ble to							6			
CO1:	apply	y the	concept	s of ve	ector d	liffere	ntiatio	on and	integ	ration	to de	termin	e the	line	e, su	rfac	e
	and v	/olum	e integr	als.					-						,		
CO2:	apply	the c	lassical	metho	ds to	solve	linear	ordina	ary di	fferenti	al equ	uations	5.				
CO3:	U3: apply the appropriate numerical methods to solve ordinary differential equations.																
CO4:	apply the classical methods to solve partial differential equations.																
CO5:	appiy	the a	ppropri	ate fini	te dif	terenc	e sche	emes to	o solv	e partia	al diff	erentia	al equ	uatio	ns.		
Pre-rec	Tuisite	es:	1					1									
•	Funda Funda	menta menta	als of el	ementa	ry alg	ebra			• F • F	undam	entals	of trig	gono	netr	у		
					0	0/00	DCO							. y			100
	(3/2/1	indicat	es the s	C	b of c	, PSO	Map	ping Stro	ng 2 N	Ind:	m 1 11	Vacl				
CO		Pr	ogramm	ne Outc	omes	$\frac{1000}{(POs)}$	and I	Progra	mme	Specifi	c Out	m, 1-v	(PS	$\overline{(0s)}$		n an	
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	P09	PO10	PO11	PO12	PS	01	P	502	
201	3	2		3	2						2	2	3			3	
202	3	2		3	2						2	2	3		:	3	語の記述
203	3	2		3	2			The second			2	2	3		:	3	
204	3	2		3	2						2	2	3			}	A DESCRIPTION OF
205	3	2		3	2						2	2	3		-	;	
			Course	e assess	sment	meth	ods ['	Theory	with	tutoria	ll cou	rse]					
					Direc	t				•		-	In	dire	ct		1000
CIE test	I(8)(Theo	ry)	0	Att	endan	ce (5)									ata ping	1996
TE test	II (8) III (8)	(Inec	ory)		Ass	ignme	ent/Qu	iz/Ser	ninar	(5)		Co	urse	end	surv	ev	
Dbjectiv	ves Tes	st (6)	.019)		Sen	al CIE	: 40 n End I	narks	notion	. 60			ui ov	Viiu	Jui v	Cy	
ait 01	VEC	TOR	CALC	ULUS	Joen	105101	LAIQI	SAdiiiii	1411011	. ooma	IKS	1		10	ITan		_
ector (differe	entiat	ion: Sc	alar an	d vect	or val	ued f	unction	15 - (Tradien	tofa	scalar	r noi	12 nt fu	ncti	rs	_
evel su	ırface,	Unit	norma	al vecto	or, Ai	ngle b	etwee	en the	two	surface	es, di	rection	nal d	eriva	ative	s -	_
Diverger	nce of	a ve	ctor po	int fun	ction	- Sol	enoid	al vec	tor –	Curl o	ofav	vector	poin	t fur	ictio	n -	-
rotatio	nal veo	ctor –	Proble	ns base	ed on	vector	ident	ities –	Scala	r poter	tial.						
ector i	integr	ation	: Line,	surfac	e and	volu	ne in	tegrals	s – S	tatemen	nts of	f Gree	n's,	Stok	e's	and	l
ectanon	lar par	allelo	nined	1S - S	imple	appl	icatio	ns inv	volvin	g squa	ares,	rectan	gles,	cub	bes	anc	
nit 02	ORD	INAL	RY DIF	FERE	NTIA	LEC	UAT	IONS						12	Uer		_
ligher (order	linear	ordina	ry diff	erenti	al equ	ation	s with	con	stant c	oeffic	ients	- C:	auch	v's	rs and	-
a man da	e's line	ear or	dinary o	lifferen	tial ed	quation	ns – N	Aethod	l of va	ariation	of pa	aramete	ers.		, .		•

Programme: B.E / B.. Tech

Semester II

Sona College of Technology

Unit 03	NUMERICA EQUATION	L SOLUTION (OF ORDINAR	Y DIFFERENT	IAL	12 Hours					
Single St series, Eu Multi St and Adar	tep Methods: aller and Modifier ap Methods:	Numerical solution fied Euler and For Numerical solution	on of first order urth order Rung on of first orde	r ordinary differer ge – Kutta method r ordinary differe	itial equation ntial equatio	ns by Taylor's					
Unit 04	PARTIAL D	IFFERENTIAL	FOLIATION	2							
Formatio	n of partial di	ifferential equation	EQUATION	· · · · · · · · · · · · · · · · · · ·		12 Hours					
form of	nortial differen	antial equations	Second and	s partial differen	itial equation	n – Clairaut's					
constant (coefficients	And equations -	- Second orde	r linear partial c	interential e	equation with					
	NUMERICAL SOLUTION OF PARTIAL DIFFERENTIAL										
Unit 05	05 EQUATIONS 12 Hours										
Classifica	tion of secon	d order partial d	lifferential equi	ations – Finite di	fference sch	emes for the					
solution of	of two dimen	sional Laplace's	and Poisson's	equations on re	ctangular de	omain – One					
dimension	nal heat flow	equation by exp	licit (Bender-S	chmidt's) and im	plicit (Cran	k Nicholson)					
methods.				,	1 (,)					
Theory:	45 Hrs	Tutorial: - 15	Practical: -	Project:	Total Hou	rs: 60 Hrs					
TEXT BO	DOKS:		1	j	100011100	15. 00 1115					
1 17	¥7	r ·	1								
I. I. D.	Veerarajan,	Linear Algebra an	id Partial Differ	rential Equations"	, McGraw H	lill					
Pu	Publishers, 1 ^{er} Edition, 2018.										
2. 1.	2. T. Veerarajan, "Engineering Mathematics for Semesters I & II", McGraw Hill Publishers,										
1	Edition, 2019										
3. 1.	Veerarajan, "I	Numerical Metho	ds", McGraw H	lill Publishers, 1 st	Edition, 201	8.					
REFERE	NCE BOOKS	S:									
1. J. S	Stewart, "Calc	ulus", Cengage P	ublishers, 8 th E	dition, 2016.							
2. C. Ed	Prasad and 1 ition, 2018.	R. Garg, "Advan	ced Engineerin	ng Mathematics",	, Khanna P	ublishers, 1 st					
3. E. Re	Kreyszig., " print, 2017.	Advanced Engin	eering Mather	natics", Wiley F	ublishers,	10 th Edition,					
4. B.	S. Grewal, "H	igher Engineering	g Mathematics'	'. Khanna Publish	ers 44 th Edit	ion 2018					
5. B.	V. Ramana, "	Higher Engineeri	ng Mathematic	s", McGraw Hill	Publishers,	29 th Reprint,					
1201											
				and a							
			4	5K							
×.			D- 8	TAVARHAD	ATHI						
			ASSOC	IATE PROFESSOR 8	HEAD						
			DEPAR	TMENT OF MATHEM	ATICS,						
			SONA CO	LLEGE OF TECHI	VOLOGY,						
			OALE	AN-030 003. 18mm	nauu.	1					
		The second se	PII	: 0427 - 4099999	9.						

12.1.2024 Version 1.0

Programme: B.E / B.. Tech

Regulations 2023

Semester II

TIO	2011	TVO(120	זת	IVEIC	S OF	еі есті		DEVI	CES	L	T	Р	J	C
02	зрп	120	J 3G	PI	IISIC	S OF	ELECII	CONIC	DEVI	CES	2	0	0	0	2
Cours	se Oı	utcon	nes					*		•					
At the	e end	l of t	he cou	rse, the	studer	nt will	be able	to							
CO	L:	Dif	ferentia	te the e	lectrica	l and	thermal c	onduct	ivity of	metals	•	5 5 5			
CO	2:	Elu	Elucidate the classification of semiconducting materials.												
CO	3:	Dis	Discuss the applications of diode as rectifier, photodiode, LED and solar cell.												
CO	4:	Exp	Explain the operation of the bipolar transistor as an amplifier.												
CO	5:	Eva	luate th	ne nove	l prope	rties o	f shape m	nemory	alloys	and nat	nomater	ials.	i.		
Pre-re	equis	site:													
		Bas	ic Knov	wledge	in elect	ronics	and elec	tricity a	& magn	etism					
				and and a state of the			CO/PO,	PSO M	lapping	s .					
			(3/2	2/1 india	cates the	e strer	rgth of co	orrelatio	on) 3-St	rong, 2-	-Medium	n, 1-We	PSOn)		
COs	PC	01	PO2	Program	PO4	PO5	5 PO6	PO7	PO8	P09	PO10	PO11	PO12	PSO1	PSO
CO1	3		2		-	-	2	2	-		2	-	1	-	2
CO2	3		2	-	-	-	2	2	-	-	2	-	1	-	2
CO3	3	•	2	-	-	-	2	2		-	2	- 200	1		2
CO4	3		2.	-			2	2	-	-	2		1		2
CO5	3		2		-	-	2	2	-	-	2		1		2
				-	a <u>endese, servoru</u>	Co	ourse Ass	essme	nt meth	ods	1				
					- I	Direct						化和	Indir	ect	
CIE te CIE te CIE te Assig	est I (est II est II) nme	(8) (8) I (8) nt/se	eminar/	Quiz (5	5)		Objective Attendar Total CII Semester	es Test nce (5) E: 40 m : End E	(6) arks xamina	tion (60))	Con	urse end	d surve	у
Jnit 0	1: CC	OND	UCTIN	NG MA	TERIA	LS	9. ⁸							6 Hou	rs
Basic	defi	initio	ons -	Classic	cal free	elect	ron theo	ry of 1	netals	- Expre	ession f	or elec	trical c	onducti	ivity
Expre	ession	n for	therma	al cond	uctivity	- Wi	iedemann	- Fran	z law -	Lorent	z numbe	er – Dra	awback	s of cla	assica
free e	lectr	on th	neory -	Fermi e	energy a	and Fe	ermi distr	ibution	functio	n - Effe	ect of ter	mperati	ire on F	ermi fu	nctior
- Den	sity o	ofen	ergy st	ates - C	arrier c	oncen	tration in	metals	5.						

12.1.2024 Version 1.0

......

ē,

Programme: B.E / B.. Tech

Semester II

Regulations 2023

April 2

Unit 02: SEMICONDUCTING MATERIALS	6 Hours
Intrinsic semiconductors - Energy band diagram - Direct and indirect band gap semice	onductors - Carrier
concentration in intrinsic semiconductors - Fermi level - Variation of Fermi level	with temperature -
Electrical conductivity - Band gap determination - Extrinsic semiconductors - Carrier con-	centration in n-type
and p-type semiconductors (Qualitative Treatment only) - Hall effect - Determination of	f Hall coefficient -
Applications.	

Unit 03: PN JUNCTION DIODE AND OPTOELECTRONIC DEVICES

6 Hours

6 Hours

6 Hours

PN junction diode - Formation of p-n junction – P-n junction diode under forward and reverse bias - Application of p-n junction diode as rectifier - Half wave and Full wave rectifier - Zener diode - Zener diode as voltage regulator –Basic idea of a clipper and clamper - Optoelectronic devices - Photo diodes and its applications - Light emitting diode (LED) - Principle , construction and working - Solar cell - Principle, construction and working.

Unit 04: BIPOLAR JUNCTION TRANSISTORS AND AMPLIFIERS \checkmark

Bipolar junction transistors – Introduction - npn and pnp transistors - Transistor biasing –Transistor currents-Transistor circuit configuration- common base configuration - common emitter configuration-Transistor action in the common base mode – Static characteristics of transistor in common emitter mode - Relation between α and β - Amplifiers - Transistor as an amplifier - Introduction to Field effect transistors (FET) -Types of field effect transistors- Junction field effect transistor (JFET).

Unit 05: NEW ENGINEERING MATERIALS 🕓

Shape memory alloys (SMA) - Characteristics, properties of NiTi alloy, applications, advantages and disadvantages of SMA - Nanoscience and Nanotechnology - Significance of nanoscale - Different types of nanostructures (0-D, 1-D, 2-D and 3-D) - Fabrication of nanomaterials - Ball milling and Chemical vapour deposition technique (CVD) - Carbon nanotubes - Structure, properties and applications - Fabrication - Pulsed laser deposition method.

T	heory: 30 Hrs	Tutorial:	Practical:	Project:	Total Hours	s: 30 Hrs
TEXT	BOOKS	1860 ^{- 17}			-	
1.	V. Raghavan, "Ma	aterials Science a	nd Engineering: A	A First Course" Pre	entice Hall India	Learning
	Private Limited, 6	th Edison, 2015.			4	•0
2.	B.K. Pandey and	S. Chaturvedi, "E	ngineering Physic	es", Cengage Learn	ing India Pvt.	Ltd., Delhi,
	2012.		2 2			

REFE	RENCES
1.	"Physics for Electrical and Electronics Engineering", Sonaversity, Sona College of Technology,
	Salem, Revised Edition 2016.
2.	William D. Callister Jr., David G. Rethwisch, "Callister's Materials Science and Engineering", 10th
	Edition, Global Edition 2019.
3.	R.Wolfson, "Essential University Physics", Volume 1 & 2. Pearson Education (Indian Edition), 2009.
4.	M. Arumugam, "Materials Science", Anuradha Publications, Kumbakonam, 2006.
5.	V.K Mehta, Rohit Mehta "Principles of Electronics", S.Chand & Company Ltd, 10th Edition 2014.

Chult 12.1. mory

Dr. C. SHANTHI, M.Sc., M.E., Ph.D., Professor of Physics Head, Department of Sciences Sona College of Technology (Autonomous) SALEM-636 005.

M. J. J. J. 1/24.

Dr. M.RENUGA, Professor & Head, Department of Humanities & Languages, Sona College of Technology, SALEM - 636 005.

	2		•		- -				*		L	Т	P	J	C
U 2	U23CHE204D MAT				ATERI	ALS CH	HEMIS	ΓRY		3	0	0	0	3	
Cours	e Ou	itcom	es												1
At the	e end	l of th	e cou	rse, the	studen	t will b	oe able	to		•					
CO1	:	Desc	ribe tł	ne basic	concep	ots of po	olymeri	sation r	eaction	s and a	nalyze v	arious	types of	fcompo	osites
		for sp	pecific	indust	rial app	olication	ns based	l on the	ir prop	erties.					2
CO2	2:	Class	ify Na	ano fille	ers, asse	ess the a	advanta	iges and	l limita	tions of	differer	nt synth	iesis me	ethods f	or
		Nanc	o com	posites	and pro	opose ir	nnovati	ve appr	oaches	for imp	proving	their fal	oricatio	n and	
		perfo	orman	ce.											
COS	3:	Discuss the principle, advantages and applications of organic electronic materials in electronic devices.													
CO4	1 :	Unde	erstan	d the	statem	ent of	phase	rule,	industr	ial imp	portance	e, types	s, comj	positior	1 and
	i x	appli	catior	ns of all	oys.								3		
COS	5:	Anal	yze is	otherm	al tran	sforma	tion dia	agrams	and co	oling c	urves s	uperim	posed o	on ther	n and
		appli	catior	n of hea	t treatn	nent me	ethods	to enha	nce the	surface	e proper	ties of s	steel con	mponer	nts for
		wear	resist	ance ar	id toug	hness.						×			
Pre-re	equis	ite:				e se								-	
Basic	knov	vledge	e on tl	he conc	epts of	enginee	ering ch	emistry	7.						
						0	CO/PO,	PSO M	lapping	; ·					
			(3/2	/1 indic	ates the	e streng	th of co	orrelatio	n) 3-St	rong, 2-	Mediun	n, 1-We	ak		
COa			.]	Program	nme Oi	atcome	s (POs)	and Pro	ogramn	ne Speci	ific Outo	comes (PSOs)		
COS	PC	01	PO2	PO3	PO4	PO5	PO6	PO7	PO8	P09	PO10	PO11	PO12	PSO1	PSO2
CO1	3		2					2						3	3
CO2	2		2					2						2	3
CO3	. 3		2					2						3	3
CO4	3		3					2						3	3
CO5	3		3					2						3	3
						Cou	rse Ass	essmer	nt meth	ods		_			
					L	Direct							Indir	ect	
CIE te	est I (est II	8) (8)				C) bjective Attenda	es Test nce (5)	(6)						
CIE te	est III	[(8)				Т	otal CII	E: 40 ma	arks			Coi	irse enc	l survey	7
Assig	nmer	nt/sen	ninar/	Quiz (5)	S	emester	r End E	xamina	tion (60)				
Unit 01	l: CH	IEMIS	STRY	OF PO	LYMEI	RS ANI	D COM	POSIT	ES	2				9 Hour	S
Nome	encla	ture	and o	classific	ations	of Pol	ymers	– Fun	ctionali	ty – 1	ypes o	f Poly	merizat	ion-ado	lition-
	<i>12</i> .	01.202	24 V	ersion I.()	Progra	mme: B	.E/B7	ech .	Semester	П	Re	gulations	2023	

•

condensation and copolymerization – Free Radical mechanism of addition polymerization – Properties of Polymers- Tg – tacticity - Moulding constituents of plastic – Moulding of plastics into articles-Injection-Compression and Blow moulding – Thermoplastic and Thermosetting Resins – Composites – Constituents – matrix and dispersed phase – various types of composites and their applications.

Unit 02: NANOSTRUCTURED COMPOSITES

9 Hours

9 Hours

Definition of nanocomposites – Nanofillers: Classification, synthesis and properties– Synthesis of nanocomposites by physical methods - direct mixing and solution mixing - Chemical methods - Microemulsion synthesis, Microwave assisted synthesis and Sonochemical assisted synthesis-Types of nanocomposites - Core-Shell nanostructure, Organic-Inorganic hybrid nanocomposites, Quantum dot (QDs) synthesis.

Unit 03: CHEMISTRY OF ORGANIC ELECTRONIC MATERIALS

Organic semiconducting materials – working principle and advantages over inorganic semiconducting materials - p-type and n-type organic semiconducting materials - Pentacene Fullerenes-C-60 – Organic dielectric material – definition - working principle and examples - Polystyrene – PMMA – Organic Light Emitting Diodes (OLEDs): construction, working principle and applications – Organic transistors: construction, working principle and applications in electronic industries.

Unit 04: PHASE RULE AND ALLOYS

Statement and explanation of terms involved - limitations and applications of phase rule – Construction of phase diagram for one component system; water system – condensed phase rule – construction of phase diagram by thermal analysis – simple eutectic systems - Iron – Iron carbide equilibrium diagram, Classification of steel and cast-Iron, properties and application.

Alloys: Introduction - Significance of alloying, Functions and effect of alloying elements - ferrous alloys – nichrome and stainless steel – non-ferrous alloys – brass and bronze- Introduction to Aluminium alloys – Titanium alloys, Mg-alloys, Ni-based super alloys.

Unit 05: HEAT TREATMENT AND POWDER METALLURGY

Definition – Full annealing, stress relief, recrystallization, and spheroidising –normalizing, hardening and tempering of steel. Isothermal transformation diagrams – cooling curves superimposed on I.T. diagram – continuous cooling Transformation (CCT) diagram – austempering, martempering – hardenability, Jominy end quench test -case hardening, carburizing, Nitriding, cyaniding, carbonitriding – Flame and Induction hardening – vacuum and plasma hardening – thermo- mechanical treatments.

T	heory: 45 Hrs	Tutorial: 0	Practical: 0	Project:0	Total Hours: 45 Hrs
TEXT	BOOKS			2 ¹⁰ 2 2 2	
1.	P.C.Jain and Moni	ica Jain, "Enginee	ring Chemistry" I	Dhanpat Rai Pub,	Co., New Delhi , 17th Edition,
	2018.				
2.	'Kenneth G.Budin	ski and Michael	K. Budinski, "E	ngineering Mater	rials", Prentice Hall of India
	Private Limited, 9	th edition, 2018.			
REFE	RENCES				

9 Hours

9 Hours

1.	H.K. Chopra, A. Parmer, "Chemistry for Engineers", Narosa Publishing House, New Delhi, 110002,
	2016.
2.	Kannan P., Ravikrishnan A., "Engineering Chemistry", Sri Krishna Hi-tech Publishing Company
	Pvt. Ltd., Chennai, 2009
3.	B. Sivasankar "Engineering Chemistry" Tata McGraw-Hill Pub.Co.Ltd, New Delhi, 2008
4.	Ozin G. A. and Arsenault A. C., "Nanochemistry: A Chemical Approach to Nano materials",
	RSC Publishing, 2005.
5.	G.S. Upadhyay and Anish Upadhyay, "Materials Science and Engineering", Viva Books Pvt.Ltd,
	New Delhi, 2020.

-

di

Dr. M.RENUGA, Professor & Head, Department of Humanities & Languages Sona College of Technology, SALEM - 636 005.

CSmll

Dr. C. SHANTHI, M.Sc., M.E., Ph.D., Professor of Physics Head, Department of Sciences Sona College of Technology (Autonomous) SALEM-636 005.

Programme: B.E / B.. Tech Semester II

Regulations 2023

U23	MC20	01			ENGIN	JEERIN	NG ME	CHAN	ICS –			L	ГР	J	0
- 69 - •		4.2 3			STA	FICS A	ND D	YNAM	ICS			3 (0 0	0	3
Course	Outo	comes	2 part								<u> </u>		and the second s		<u></u>
After s	ucces	sful co	ompleti	on of t	this cou	rse, th	e stude	nts sho	uld be	able to)	eti (ł
CO1:	An	alyse	the forc	ces in s	tatically	v deterr	ninate	structu	res usi	ng scala	r and v	vector a	nalytic	al	
CO2	Ev	amino	the cor		<u> </u>						1	<u></u>		4	
CO2.	Eva		the offe	ct of fr	ior equ	the dia	m of rig		y using	; free bo	ody dia	gram.	2 8 2 8 2		
CO4:	De	Determine the centroid, moment of inertia and polar moment of inertia of simple and composite sections.													
CO5:	An	alyse t	the mot	ion of	a body	with fo	rce and	without	ut force	e causin	a the n	notion			- 1. 1773
Pre-req	uisite												<u>, 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 199</u>	<u></u>	<u>(1)</u>
	Pł	nysics i	for Eng	ineers						1 11 14	<u>21. 41.2</u>	<u> </u>	<u>, 730</u>		
	had a	(629), i A				CO/PO	, PSO I	Mappin	ıg	a gunar dhar					
(and set al		(3,	/2/1 ind	licates	strengt	h of cor	relation	n) 3-Str	ong, 2-	Mediur	n, 1-We	eak			
- - -		Programme Outcomes (POs) and Programme Specific Outcome (PSOs)													
P	01	PO2	PO3	PO4	PO5	PO6	PO7	PO8	P09	PO10	PO11	PO12	PSO1	PS	50
201	3	3	3	2		2	2			1	1.46	1	3		2
202	3	3	3	2		2	2		1. 1. 1.	1	e e i i	2	3		2
203	3	3	3	2	C Barry Col	2	2	i interest	$T \rightarrow 0$	1		2	3		2
204	3	3	3	2		2	2	an ann an Anna Anna Anna Anna Anna Anna		1		1	3		2
205	3	3	3	2		2	2	1 		1		2	3	1 2	2
					Cou	rse Ass	sessme	nt meth	nods	<u> </u>	<u></u>	.	at an	<u> </u>	
39	le serie	rte (Poio	anta ini	Γ	Direct	r _e strations	82-1-4(2). 	e e e e e e e e e e e e e e e e e e e				Indire	ect		
TE test	I (8)				Objecti	ve test	(6)							<u>760</u> 	
TE test	II (8)				Attend	ance (5)					A (ATTA) Atta	i Des Hall. Statistica		
CIE test	III (8)				Total C	IE: 40 r	narks				Cou	rse end	surve	y	
ssignm	ent/s	emina	r/Quiz	(5)	Semest	er End	Examir	nation (60)						
nit 01: 1	BASI	CS & S	STATIC	CS OF	PARTI	CLES				9-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1		9	Hours		
ntroduc	tion -	- Unit	s and	Dimen	sions –	Laws	of Me	chanics	– Lar	ne's the	eorem.	Paralle	logran	n ar	hn
iangula	r Lav	v of fo	rces – V	/ectors	- Vecto	orial re	present	ation o	f force	s and m	oment	s – Con	lanar I	Forc	res
Resolut	tion a	nd Co	mposit	ion of i	forces -	Equili	brium o	of a par	ticle - I	Forces i	n space	e – Equ	ilibriu	n of	fa

12.1.2024 Version 1.0

Programme: B.E / B.. Tech

Semester II

Unit 02: EQUILIBRIUM	OF RIGID BODIE	ES IN 2 DIMEN	SIONS	9 Hours
Free body diagram – Ty	pes of supports a	nd their reactio	ns – requirement	s of stable equilibrium -
Moments and Couples –	Moment of a force	about a point –	Varignon's theore	em – Equilibrium of Rigid
bodies in two dimensions				
Unit 03: FRICTION		Starsfinsky (Sector)	e juli, rigietzie (d. 17 Altonio de la composition de la composit	9 Hours
Frictional force – Laws of	of Coulomb friction	on – Angle of fi	riction – cone of	friction - Equilibrium o
bodies on inclined plane-	Ladder friction, W	edge friction, Se	crew friction.	1998 - 1998 - 1998 - 1998 - 1998 - 1998 - 1998 - 1998 - 1998 - 1998 - 1998 - 1998 - 1998 - 1998 - 1998 - 1998 -
Unit 04: PROPERTIES O	F SURFACES AN	D SOLIDS		9 Hours
Determination of Areas a circle, triangle from inte Second and product mon section by using standar moment of inertia.	nd Volumes – Firs gration – T sectio nents of plane area d formula – Paral	t moment of are on, I section, Ho a – Rectangle, tri lel axis theoren	a and the Centroi ollow section by angle, circle from and perpendicu	id of sections – Rectangle using standard formula integration – T section, ilar axis theorem – Pola
Unit 05: DYNAMICS OF	PARTICLES			9 Hours
Displacements Valasity	and accoloration	thoir rolationshi	n Postilinger -	nd Curvilinear metice
Newton's law – Work E	nergy Equation o	f particles – In	pulse and Mome	entum- Impact of elastic
bodies.				
Theory: 45 Hrs	Tutorial:	Practical:	Project:	Total Hours: 45 Hrs
TEXT BOOKS				
1. Beer, F.P and John McGraw-Hill Inte	son Jr. E.R. "Vecto rnational 11 th Edit	or Mechanics for ion, 2016.	Engineers: Statics	and Dynamics",
2. Dr. N. Kottiswaran 10th edition 2010.	n, "Engineering M	echanics (Statics	and Dynamics)"	,Sri Balaji Publications
REFERENCES				
1. Rajasekaran, S, Sa Publishing House	nkarasubramanian Pvt. Ltd., (2011).	, G., "Fundame	ntals of Engineeri	ng Mechanics", Vikas
2. Hibbeller, R.C., "E Asia Pvt. Ltd., (20	ngineering Mecha 15).	nics", Vol. 1 Sta	tics, Vol. 2 Dynam	nics, Pearson Education
3. Palanichamy, M.S Hill, (2004).	., Nagam, S., "Eng	ineering Mechar	nics – Statics & Dy	namics", Tata McGraw-
4. MeriamJ.L,Kraige	L.G,"Engineering	Mechanics-Statio	cs"6th Edition, Wi	iley, 2017.
5. Irving H. Shames, Education Asia Pv	"Engineering Mec t. Ltd., (2006).	chanics – Statics	and Dynamics", I	V Edition- Pearson
6. Kumar, K.L., "Eng company, New De	;ineering Mechanic elhi (2008)	cs", 3rd Revised	Edition, Tata Mc	Graw-Hill Publishing
			Dr. Profe Department o SONA COL Junction Ma Ph	P. SURESH essor and Head f Mechatronics Engineering LEGE OF TECHNOLOGY in Road, SALEM - 636 005. :0427-4099999

Semester II

Regulations 2023

U2:	3MC202	2		BASI	C ELEC	TRICA	AL ENG	GINEE	RING			L	TP	J			
0			(1) ¹ 1.			i krite er	in the second	gnie n'e		L T P J 3 0 0 0 e able to s.							
Cours	e Outco	mes	n de la constant Transformation										1941 J				
After	successi	ful com	pletion	n of thi	is cours	e, the s	studen	ts shou	ld be a	ble to	, 22 G.C						
CO1:	Evalu	ate the	behavi	our of	circuit o	elemen	ts in ele	ectric ci	rcuits.					4			
CO2:	Expla	in the p	orincipl	es of o	peration	n of ma	gnetics	s circuit	s and t	ransfo	rmers		an line	na sela nda. Notesta antesta			
CO3:	Outlir	ne the c	onstruc	ction a	nd worl	king pr	inciple	s of DC	machi	nes an	d sync	hrono	us mach	nines.			
CO4:	Evalu. induct	ate the tion mo	electro otors.	magne	tic ener	gy con	versior	and op	peratin	g princ	iple of	three	phase	10. 10. 10. 10. 10. 10. 10. 10. 10. 10.			
CO5:	Explai	in the p	orincipl	es of o	peration	ns of sir	ngle-ph	ase ind	luction	and st	epper	motor	s.				
Pre-ree	quisite	pt. (general de	an dh	1	1150		1			14.3		N. 1920				
	- Marair ^a	Physic	cs for E	nginee	rs	t New Y	CL2-1	eacar.				en de la compañía Ven de la compañía de la compañía Ven de la compañía de	13JOA				
					С	O/PO,	PSO N	lapping	e.				1				
		(3/2	2/1 indi	cates s	trength	of corr	elation) 3-Stro	ong, 2-1	Mediun	n, 1-W	eak	anna Caolanach Surface	ini ang			
COs	PO1	DO2	Prog	gramme	Outcon	nes (PO	s) and I	rogram	me Spe	cific Ou	tcome	(PSOs)	i and	oqus vie			
CO1	3	3	3	2	PO5	PO6	PO7	PO8	P09	PO10	PO11	PO12	PSO1	PSO2			
CO2	3	3	3	2			2			2			3	2			
CO3	3	3	3	2	1.1.21		2			2	A. 24	121H5_5	3	2			
CO4	3	3	3	2			2	10.25	assist	2		11. 11	3	2			
CO5	3	3	3	2			2			2	1.542		3	2			
41 ¹ 11					Cour	se Asse	essmer	t meth	ods		1		Carlor Carlor				
	1951 - 1973 - 1973 19	an a		Direc	ŧ						Iı	ndirec	t				
CIE tes	t I (8) t II (8)			C	bjective	e test (6)			en Hare en Hare tech		deži 1629. 1630.	altalá. These				
CIE test	t III (8)				otal CII	E: 40 m	arks		and an an an		Course	end s	urvey				
Assigni	ment/se	minar/	Quiz (5) S	emester	End E	xamina	ation (6	0)								
nit 01:	FUNDA ELEME	MEN' NTS	TAL LA	WS O	F ELEC	CTRICA	AL ENG	GINEE	RING	AND (CIRCU	IT	9 Hou	rs			
Electric Kirchho Darame resonan	curren off's law ter – Se ace circu	t – Co vs – Er ries an its	oulomb nergy a d paral	's law ind Po llel cor	y – Oh wer – nbinatio	m's la Resista ons of 1	w – F nce pa resistar	araday ramete nces —]	's law r – Inc RLC se	of ele ductanc eries-pa	ectrom ce para rallel o	agnet amete circuit	ic indu r –Capa s – Seri	ction - icitance es RLC			

Programme: B.E / B.. Tech

Semester II

Unit 02: MAGNETIC CIRCUITS AND TRANSFORMERS 9 Hours Ampere's Law - Flux, Flux density, Field strength, Permeability, Reluctance, Permeance - Theory of magnetism - Hysteresis and Eddy-current losses - Magnetic Circuit - Self-inductance, Mutual inductance, Co-efficient of coupling - Transformers - Equivalent circuit - Parameters from No-Load tests - Efficiency and Voltage regulation. Unit 03: DC MACHINES AND THREE-PHASE SYNCHRONOUS MACHINES 9 Hours DC Generator: construction, working principle, EMF equation, Types - DC motor: working principle, Types, Speed torque characteristics - starters for DC motors - Generation of a three-phase voltage-Synchronous generator - Construction and working principle. Unit 04: ELECTROMAGNETIC ENERGY CONVERSION AND THREE PHASE 9 Hours INDUCTION MOTOR Introduction-Basic analysis of Electromagnetic torque - Three-phase induction motor - Revolving Magnetic Field - Construction- Working principle- Types - Speed-Torque characteristic - Parameters from no load and blocked rotor tests - Equivalent circuit - Applications of three-phase induction motors. Unit 05: SINGLE PHASE INDUCTION MOTORS AND SPECIAL MACHINES 9 Hours Single Phase Induction Motor types: Split phase induction motor, Capacitor start induction motor, Capacitor start capacitor run induction motor - Switched reluctance motor- Working principle of stepper Motors: Variable reluctance stepper Motor and Hybrid stepper motor - PM Brushless DC motors -Applications Theory: 45 Hrs Tutorial: --Practical: --Project: --**Total Hours: 45 Hrs Text Books** 1. B.L. Theraja and A. K. Theraja, "A Text Book of Electrical Technology", S.Chand Publication, Vol 2, 2014. 2. A. Sudhakar and S.P Shyam Mohan, "Circuits, Network Analysis and Synthesis", Tata McGraw Hill, Fifth Edition, 2015. REFERENCES 1. D.P. Kothari and I.J. Nagrath, "Basic Electrical Engineering", Tata McGraw Hill, Fourth Edition, 2011. 2. V.K.Metha, Rohit Metha, "Principles of Electrical Engineering and Electronics", Second edition, S.Chand Publication, 2015. 3. S.K.Bhattacharya "Basic Electrical and Electronics Engineering" Pearson Education India, 2012. 4. V.N. Mittle and Aravind Mittal "Basic Electrical Engineering", Tata McGraw Hill, Second edition, 2005. Professor and Head

Professor and Head Department of Mechatronics Engineering SONA COLLEGE OF TECHNOLOGY Junction Main Road, SALEM - 636 005. Ph:0427-4099999

Semester II

Regulations 2023

				L	Т	P	T	C
U231	TAM201	தமிழரு	ம தொழில்நுட்பமும்	1	0	0	0	1
Course C	Outcomes	1,			L			
At the en	d of the cour	rse, the student wi	ll be able to					
CO1:	Describe th	e weaving and cer	amic technology			5		
CO2:	Explain the	design and construct	ion technology					
CO3:	Analyse the	manufacturing techn	ology	1. 1.				- CONTRACTOR
CO4:	Describe the	agriculture and irrig	gation technology	2		2 000 - 2000 - 2000 - 2000 - 2000 - 2000 1100 - 2000		
CO5:	Explain the	Scientific Tamil and	Tamil Computing					
	J	C	Course Assessment methods					
		Direc	t			ct		
CIE test I	(30)		Total CIE: 100 marks					
CIE test I CIE test I	I (30) II (40)		Semester End Examination: NI	L	Cour	se end	survey	
Unit 01: W	EAVING AN	D CERAMIC TECH	INOLOGY	l		2	Hours	
சங்க கா பாண்டங்க Jnit 02: DI அலகு II சங்க கா வடிவமைப் பற்றிய வி மற்றும் பிழ மதுரை மீ காலத்தில் Jnit 03: M	லத்தில் நெச ளில் கீறல் கு ESIGN AND C வடிவயை லத்தில் வடி பிரங்கள் – ற வழிபாட்டுத் னாட்சி அம்ம சென்னையில் ANUFACTUR	வுத் தொழில் – றியீடுகள். CONSTRUCTION T பட்டி மற்றும் கட்டிடத் வமைப்பு மற்றும் லத்தில் கட்டுமான மாமல்லபுரச் சிற்பங் தலங்கள் – நாயக் ன் ஆலயம் மற்றும் இந்தோ–சாரோசெ ING TECHNOLOG	பானைத் தொழில்நுட்பம் – க ECHNOLOGY 5 தொழில்நுட்பம்: கட்டுமானங்கள் & சங்க கால பொருட்களும் நடுகல்லும் – சிலா களும், கோவில்களும் – சோழர் கர் காலக் கோயில்கள் – மாதிர திருமலை நாயக்கர் மஹால் – செ னிக் கட்டிடக் கலை.	ருப்பு சில லத்தில் ல ப்பதிகாரத் காலத்த 1 கட்டடை சட்டிநாட்டு	லப்பு பா லீட்டுப் ந்தில் மே வப்புகள் விடுகள் விடுகள்	ாண்டங்க 3 பொருப் ஹட அ நங்கோய பற்றி அ ள் – பிர	ங்கள் 3 Hours 3 ருட்களில் அமைப்பு ஹிதல், பிரிட்டிஷ்	
ച്ചலക്ര 111	உற்பக்கி	க் கொடில் நட்பும்:				5	2	
கப்பல் கட் வரலாற்றுச் உருவாக்கு – எலும்புத்	டும் கலை சான்றுகளா ம் தொழிற்சா துண்டுகள் –	– உலோகவியல் – க செம்பு மற்றும் லைகள் – கல்மணிச தொல்லியல் சான்று	- இரும்புத் தொழிற்சாலை – இ தங்க நாணயங்கள் – நாணய கள், கண்ணாடி மணிகள் – சுடும கள் – சிலப்பதிகாரத்தில் மணிகளி	ரும்பை பங்கள் ண் மணி 1ன் வகை	உருக்குத அச்சடித்த கள் – சட கள்,	நல், எல் தல் – ங்கு மன	ஃகு ~ மணி னிகள்	
Jnit 04: AC	BRICULTURE	E AND IRRIGATIO	N TECHNOLOGY			3	Hours	
அலகு IV அணை, ஏ கால்நடைச செயல்பாடு பண்டைய	<u>வேளாண்</u> ரி, குளங்கள், ஞக்காக வ கள் – கடல்ச அறிவு – அறி	<u>ாமை மற்றும் நீர்ப்பா</u> , மதகு – சோழர்க டிவமைக்கப்பட்ட ரார் அறிவு – மீன்வ வுசார் சமூகம்.	சனத் தொழில் நுட்பம் : ஸக் குமுழித் தூம்பின் முக்கியத்த கிணறுகள் – வேளாண்மை மு பளம் – முத்து மற்றும் முத்துக்குவ	நலம் – ச ற்றும் சே ரித்தல் –	கால்நடை வளாண் பெருங்	. பராமர மைச் க கடல் கு	3 ரிப்பு – சார்ந்த தறித்த	
nit 05: SC	U23TAM201 Suffigging Gestificity in the second	· ·						
அலகு V அறிவியல் மென்பொரு தமிழ் அகர	அறிவியல் தமிழின் வள நட்கள் உருவ ாதிகள் – சொ	ல் தமிழ் மற்றும் கன ரச்சி –கணித்தமிழ் ாக்கம் – தமிழ் இஞ ாற்குவைத் திட்டம்.	<mark>ளித்தமிழ்:</mark> வளர்ச்சி — தமிழ் நூல்களை ணையக் கல்விக்கழகம் – தமிழ் ப	மின்பதி மின் நூல	ப்பு செய் கம் – (பதல் – இணைய	3 தமிழ் பத்தில்	

12.1.2024 Version 1.0 Programme:

Т	heory: 15 Hrs	Tutorial:	Practical:	Project:	Total Hours: 15 Hrs
TEXT	BOOKS				
1.	தமிழக வரலாறு கே.கே. பிள்ளை (– மக்களும் பண் வெளியீடு: தமிழ்நா	பாடும் – rடு பாடநூல் மற்று	ம் கல்வியியல் பல	ணிகள் கழகம்).
2.	கணினித் தமிழ் – கீழடி – வைகை ந பொருநை – ஆற்ற	-முனைவர் இல. க திக்கரையில் சங்க ங்கரை நாகரிகம்.	சுந்தரம். (விகடன் ககால நகர நாகர . (தொல்லியல் து	பிரசுரம்). கம் (தொல்லியல் த றை வெளியீடு)	துறை வெளியீடு)
REFE	RENCES			5 - ⁵	
3.	Social Life of Tamils	(Dr.K.K.Pillay) A joi	nt publication of TN	TB & ESC and RMRL	– (in print)
4.	Social Life of the Tai Studies.	mils - The Classical I	Period (Dr.S.Singara	velu) (Published by:	International Institute of Tamil
5.	Historical Heritage of International Institu	of the Tamils (Dr.S.\ te of Tamil Studies)	/.Subatamanian, Dr	K.D. Thirunavukkara	su) (Published by:
6.	The Contributions o Tamil Studies.)	f the Tamils to India	an Culture (Dr.M.Va	larmathi) (Published	by: International Institute of
7.	Keeladi - 'Sangam C Archaeology & Tami	ity Civilization on th il Nadu Text Book a	e banks of river Vai nd Educational Serv	gai' (Jointly Publishe ices Corporation, Tai	d by: Department of mil Nadu)
8.	Studies in the Histor	y of India with Spec	cial Reference to Ta	mil Nadu (Dr.K.K.Pilla	ay) (Published by: The Author)
9.	Porunai Civilization Educational Services	(Jointly Published b Corporation, Tami	y: Department of A I Nadu)	chaeology & Tamil N	ladu Text Book and
10	Journey of Civilizatio	on Indus to Vaigai (F	R.Ramakrishna) (Pul	olished by: RMRL) – F	Reference Book.

74 THIE HOD

Dr. M.RENUGA, Professor & Head, Department of Humanities & Languages, Sona College of Technology, SALEM - 636 005.

Programme:

B.E / B.. Tech Regulations 2023

	an da kana ana ang kana ang ka			Г		1	1	T	1
U231	Г AM2 01	TAMIL	S AND TECHNOLOG	GY -	L		P	J	C
	-				1	0	0	0	1
Course (Outcomes								
At the er	nd of the cou	rse, the student w	ill be able to						
CO1:	Describe th	e weaving and cer	ramic technology						
CO2:	Explain the	design and construct	tion technology						
CO3:	Analyse the	manufacturing techr	ology		•				
CO4:	Describe the	agriculture and irri	gation technology	n - Carlon Contraction (Contraction of the Contraction of the Contract				5.e	a. A
CO5:	Explain the	Scientific Tamil and	Tamil Computing						
	-l	(Course Assessment m	ethods				97 - 27 - 27 - 28 - 28 - 28 - 28 - 28 - 2	
		Direc	zt				Indire	ct	
CIE test I	CIE test I (30) Total CIE: 100 marks								
CIE test I CIE test I	I (30) II (40)		Semester End Exam	ination: NIL		Cour	se end	survey	
Unit 01: W	EAVING AN	D CERAMIC TECH	INOLOGY		I	3 Hours			
Weaving I – Graffiti	Industry during on Potteries	g Sangam Age – Cer	amic technology – Blac	k and Red War	e Potte	eries (BF	RW)		
Unit 02: D	ESIGN AND (CONSTRUCTION	TECHNOLOGY		7		3	Hours	1
Build Sculp of Na Hous	ling materials a otures and Tem ayaka Period - es, Indo - Sarao	and Hero stones of uples of Mamallapur Type study (Madu cenic architecture at	Sangam age – Details cam - Great Temples of rai Meenakshi Temple) Madras during British I	of Stage Const Cholas and oth Thirumalai N Period.	ruction her wo Jayaka	ns in Sila rship pla r Mahal	appathik aces - To - Chett	aram - emples i Nadu	
U nit 03: M	ANUFACTU	RING TECHNOLO	GY		·····		3	Hours	
Art or sourc -Shel	f Ship Building e of history - N l beads/ bone b	g - Metallurgical stud Ainting of Coins – E peats - Archeologica	dies - Iron industry - Iro beads making-industries l evidences - Gem stone	n smelting, stee Stone beads -C types describe	el -Cop Flass b d inSil	oper and eads - To appathik	gold- Co erracotta caram.	oins as beads	8. ₁ .
J nit 04: A	GRICULTURI	E AND IRRIGATIC	N TECHNOLOGY				3	Hours	
Dam, Tan for cattle Knowledg	k, ponds, Sluid use - Agriculti e of Ocean - K	ce, Significance of I ure and Agro Proce nowledge Specific S	Kumizhi Thoompu of C ssing - Knowledge of S Society	Chola Period, A Sea - Fisheries	nimal – Pear	Husband rl - Cond	lry - Wo che divi	ells des ng - Ar	igned ncient
J nit 05: SC	CIENTIFIC TA	MIL & TAMIL CO	MPUTING		1		3	Hours	
Developm Software -	ent of Scienti - Tamil Virtual	fic Tamil - Tamil Academy – Tamil	computing – Digitaliz Digital Library – Online	ation of Tamil Tamil Diction	Book aries -	s – De Sorkuva	velopme ai Projec	ent of T	Famil
Theo	ry: 15 Hrs	Tutorial:	Practical:	Project:		Total	Hours:	15 Hr	S
TEXT BO	OKS					* 10 1			
1. தப கே	ிழக வரலாற .கே. பிள்ளை	µ – மக்களும் பன் (வெளியீடு: கமிம்	<mark>ன்பாடும்</mark> – நாடு பாடநால் மற்றும்	கல்வியியல்	പഞ്ഞി	கள் கட	மகம்).		
2. கல கீயூ பெ	னினித் தமிழ் ஷ வைகை ாருநை – ஆர்	முனைவர் இல. நதிக்கரையில் சர ற்றங்கரை நாகரிக	சந்தரம். (விகடன் பி மககால நகர நாகரிக ம். (தொல்லியல் துறை	ிரசுரம்). ம் (தொல்லிய ற வெளியீடு)	ல் துஎ	றை வெ	ளியீடு)	•	
T	772024 Van	ion IO Dea		D.C. /	DT	1 0 1	.: 10	22	

Ċ,

REFE	RENCES
1.	Social Life of Tamils (Dr.K.K.Pillay) A joint publication of TNTB & ESC and RMRL – (in print)
2.	Social Life of the Tamils - The Classical Period (Dr.S.Singaravelu) (Published by: International Institute of Tamil Studies.
3.	Historical Heritage of the Tamils (Dr.S.V.Subatamanian, Dr.K.D. Thirunavukkarasu) (Published by: International Institute of Tamil Studies).
4.	The Contributions of the Tamils to Indian Culture (Dr.M.Valarmathi) (Published by: International Institute of Tamil Studies.)
5.	Keeladi - 'Sangam City C ivilization on the banks of river Vaigai' (Jointly Published by: Department of Archaeology & Tamil Nadu Text Book and Educational Services Corporation, Tamil Nadu)
6.	Studies in the History of India with Special Reference to Tamil Nadu (Dr.K.K.Pillay) (Published by: The Author)
7.	Porunai Civilization (Jointly Published by: Department of Archaeology & Tamil Nadu Text Book and Educational Services Corporation, Tamil Nadu)
8.	Journey of Civilization Indus to Vaigai (R.Ramakrishna) (Published by: RMRL) – Reference Book.

1.1 m/ 1/24. HOD

Dr. M.RENUGA, Professor & Head, Department of Humanities & Languages, Department of Humanities & Languages,

B.E / B.. Tech Regulations 2023

1123	GE201			BA	SIC AP	TITUD	E-II		L	T	P	J 0 <th>C</th>	C
025	GEZUI	-	all a Bar	(Com	non to Al	l Departn	nents)		2	0	0	0	0
Course	Outcom	es	otmore	essiver	2012 - 31 10	er Chune	9BIRDOTO ^S	- Seguine - I	n Peres	om oite)	ofal	esion	VRO
At the e	nd of th	e course	e, the st	udent w	ill be ab	le to							
CO1:	Solve and w	the pro	blems ir verbal a	n Perce	ntage, Council	onversio	n of Perc	entage to	o Ratio	and Ratio	o into 1	Percer	ntag
CO2:	Elucio	late the se appro	problem priate s	ns in Pro	fit and lo fillers an	oss and p d Idioms	bercentag s and phr	e of prot	fit and l	oss.	er Lyp te and	r Luxi e Prix	nills
CO3:	Crack Volur Comp	the pro ne. orehend etly.	blems in the give	nvolving n passag	g Geomo	etry, Are	ea, Perim Comprehe	eter/Circ ension ac	cumfere	nce, Surf nd answe	ace are	ea and questic	ons
CO4:	Deduc the give	ce the p ven sent	roblems tences.	involvi	ng Trigo	onometry	and exh	nibit goo	d expen	rtise in de	etectin	g erro	ors i
C05:	Interp good	ret the vocabul	problen ary skill	ns on A by spot	ges & lo ting erro	ogarithm rs.	and wo	rk on lo	gical re	easoning	and d	emons	strat
Pre-requ	isite:						-	blems	re- Pro	lemisphe	1 510	-Spb	9110
•	Basic Know	English ledge in	languag Basic I	ge and C Mathema	brammar atics	knowled	dge		eompe				
2. AU	ield 8				CO/PC	, PSO N	Mapping				•		
- 20121	ietricei.	(3/2/1 i	ndicates	the stre	ength of o	correlatio	on) 3-Str	ong, 2-M	ledium,	1-Weak	(internet	idioa	ogh
COa		Pr	ogramm	e Outco	mes (PC	s) and P	rogramm	ne Specif	ic Outc	omes (PS	SOs)		
COS	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	P09	PO10	11	PC)12
CO1	3	3	3	2	1	1	1	3	3	3	2	3) iii
CO2	3	3	3	2	1	1	1	3	3	3	2	3	,
CO3	3	3	3	2	1	1	1	3	3	3	2	3	
CO4	3	3	3	2	1	1	1	3	3	3	2	00.3	
CO5	3	3	3	2	1	1	ov 1 min	3	3	3	2	3	5
				C	ourse A	ssessme	nt metho	ods	cal Rea	ta "Log	K.Sin	ideiV	
		1		Direc	et	•				Ir	ndirec	t	
CIE test	I (30) - 7 II (30) -	Theory Theory			Total C Semes	CIE: 100 ter End l	marks Examina	tion – NI		Course	e end s	urvey	

10991 CO 30311005 4702

and a " to hot #3

Unit 01	4			DASIC APTI		6 Hours
Percento	Te. Conver	sion of a Percent	tage into a Fracti	on - Conversi	on of a Percen	tage into a Patio
Conversio	n of a Ratio	o into a Percentag	e - Percentage Cha	on = Conversional Succession	ve percentage -	- Problems
Conversio	n or a Rath	o mito a rerecinag	• I creentage Cha	inge Buccess	re percentage -	1100101115
Val 14	-44-1. T	unded a series of	P Deservet	of contrast of the		
Verbal A	ptitude: Ju	mbled sentences a	x Reconstructions	of sentences (I	QRS)	ad aving the second
Unit 02 Drofit L	Tupos	f prices Profit	Loss Dercents	age of Profit or	d Loss Com	6 Hours
Colling D	iss: Types (of prices – Floin	- LOSS - reference	and Loss Dro	hloma	non Gain of Loss –
Setting Pl	ice and Cos	st Price Equality -	- Successive Prom	and Loss – Pro	obienns	
			1.0.1.1	1.1		
Verbal A	ptitude: So	entence fillers two	o words & Idioms	and phrase	eq avrig out be	
Unit 03	un Amalaa	Complementem	and Sunnlamonton	v anglag Lin	Triangle	6 Hours
Bronortio	y: Aligies -	- Complementary	and Supplemental	y angles – Line	es – Thangle –	Types of triangles –
Aron Do	rimeter /	Circumference:	Friangles - Dector	ales and Sauce	res _ Darallalos	ram Rhombus and
Tranazius	- Circler	_ Problems	mangies - Rectall	gies and squa		stant, Knombus and
Surface		d surface area	Volume Cuboid	- Cube - Rig	at circular cylin	der – Right circular
cone. Cr	here _ Here	u surrace area o		- Cube - Kigi	it encular cyllin	ider – Right elleular
cone – sp	nere – rielli	isplicie - i lobielli				
Verbal A	ntitudo: Re	ading comprehen	sion			
Verbal A	pillude. Re	eading comprehen		801121005	e in Gasic Mail	(III
Unit 04		0.00.1	Sector Stranger	0100	0' 0	6 Hours
Trigonon	netry: Valu	ie of Trigonomet	ry ratios for part	icular values –	Sign of Trigo	onometrical ratios –
Trigonom	etrical ratio	os for sum or diffe	rence of angles Pr	oblems		
POD	109 101					
Verbal A	ptitude: Sp	otting errors				1
Unit 05				1 1 1 1		6 Hours
Averages	- Problems	on ages – Logari	thm - Logical Rea	soning: Alpha	Series - Venn	diagram – Problems
3 2 2						
Verbal A	ptitude: W	riting captions for	given pictures.			
Theory:	30 Hrs	Tutorial: 0	Practical: 0	Project: 0	Total H	ours: 30 Hrs
TEYT D	OOKS	E E E E				COI 1 1
IEAID	JUKS					
1. S.Ch	and and Dr.	.R.S.Aggarwal, "(Quantitative Aptitu	ide for competi	tive examinatio	ns", S Chand and
Com	pany Limite	ed 2019.				
2. Nish	it K.Sinha,	"Logical Reasoni	ng and Data Interp	retation", Pears	son 2021.	
			CIANTIANI IDOUITS	20520 V6100-7		
				1971		t, 29'
				Total Ch	A A	12/200
			+	*	Q. 1	6/00
			End Examination	Semeside	Dr.S.	Anita
					Professo	or & Head
				the second the	Department Dr. S	ANITA
					Professor	and Heed
					Department	t of Training,
					SALEAT	OF TECHNOLOGY,

Semester 2

Programme: B.E / B.. Tech

Regulations 2023

U	23WI	PL214		W	ORK	KSHOP PRACTICE					L T P J 0 0 2 0 0 0 2 0 0 0 2 0 ventry.	C		
		ion i sono di		(Com	mon t	to MCT at	nd FT b	ranche	s)	0	0	2	0	1
Cours	e Ou	tcomes	ingen o	19 (38)		gunt	e se personale	Consile	4 (A & 2 *	S. Carlos			1	
At the	e end	of the cou	urse, the	studer	nt wil	l be able	to			100	1254ITE	a se se se se	1921	
CO	l: 1	Perform th	ne vario	us tech	nique	s of sheet	metal	fabricat	ion.					
CO	2: 4	Analyse v	arious t	echniqu	ies of	welding	and car	pentry	works.			ALL COL	1 401	Real I
COS	3: 5	Solve the	real-tim	e proble	ems u	sing shee	et metal	, weldi	ng and	carpent	ry.			
Pre-re	quisi	te: Nil	en test zi		1.5					18C 18B	and the second	i5	MOIL	198
		17												
		(3/2	2/1 india	cates the	e strei	CO/PO,	PSO M	apping	s rong, 2-	-Mediur	n, 1-We	ak	4940	1
co		- S	Program	nme Ou	utcom	ies (POs)	and Pro	ogramn	ne Spec	ific Out	comes (PSOs)	2	
cos	POI	PO2	PO3	PO4	POS	5 PO6	PO7	PO8	P09	PO10	PO11	PO12	PSO1	-PSO2
CO1	1							3		a contactory		2	2	
CO2	1							3	diay?			2	2	
CO3	1							3				2	2	
	f yest		0		Co	urse Ass	essmer	nt meth	ods	bier.	94	Contra la		ares I
				E)irect			104	lang di		aller "	Indir	ect	
CIE te Quiz I CIE te	Di IE test I (15) uiz I- (5) IE test II (15)					RTPS (10) Record (10) Total CIE: 60 marks					Course end survey			
Quiz I	E test I (15) iz I- (5) E test II (15) iz II- (5)				19:00	Semester marks)	End E	xamina	tion (40		i i statudi			

Semester 2

Importance	of workshop practice- Introduction to Measur	ing and marking devices, Tools and
equipment (Not for Ex	Maintenance - Workshop apparatus - Human s camination)	afety practices - First aid procedures
LIST OF EXPERIM	MENTS	
SECTION 1:	SHEET METAL	8 hours
	Making of Cone, Dust Pan and Funnel.	Pro-respining Nul
SECTION 2:	WELDING	8 hours
en nort of 7	Arc welding of Butt joint and Lap Joint.	
SECTION 3:	CARPENTRY	8 hours
	Making of Half Lap joint and Dovetail Joint.	
Demonstration:	FOUNDRY PRACTICES	6 hours
	Simple pattern making	
		Total Number of hours: 30
Theory: -	Tutorial: Practical: 30 Hrs Pro	oject: Total Hours: 30 Hrs

Dr.D. SENTHIL KUMAR, ME.Ph.D **PROFESSOR & HEAD** DEPT. OF MECHANICAL ENGG. SONA COLLEGE OF TECHNOLOGY JUNCTION MAIN ROAD, SALEM-5.

12.01.2024

Version 1.0

Semester 2

U23MC203

BASIC ELECTRICAL ENGINEERING AND DEVICES LABORATORY

L	Т	Р	J	c
0	0	4	0	2

			3									U	0 4	0 2
Cour	rse O	utcome	S	41 										- I
Afte	r succ	essful	comple	etion o	f this	course	, the s	tudent	s shou	ıld be a	ble to			
CO1	:	Unders	tand t	he usag	ge of c	ommo	n elect	rical m	easur	ing inst	rumen	ts and	basic	
		charact	eristics	s of tra	nsforn	ners an	d elec	trical n	nachin	les.				
CO2	:	Evalua	te the c	charact	eristic	s of ser	nicono	luctor	device	es.				
CO3	:	Interpr	et the s	solutio	ns for	real tin	ne app	licatio	ns of e	electrica	l mach	ines a	nd	
-		semico	nducto	or devie	ces.					-	2	A .	2 2	
Pre-r	equis	site											3	
						CO/PC), PSO	Mapp	oing					
	1	(3/2	2/1 ind	icates s	strengt	h of co	orrelati	on) 3-5	Strong	, 2-Mec	lium, 1	-Weak		
COs		1 000	Prog	ramme	Outcor	nes (PC	Ds) and	Progra	mme S	Specific	Outcom	ne (PSO	s)	
<u>CO1</u>	2	PO2	PO3	PO4	PO5	PO6	PO7	PO8	P09	PO10	PO 11	PO 12	PSO 1	PSO 2
<u>cor</u>	3	3	3	3						2			3	2
CO2	3	3	3	3						2			3	2
000			3	3					- 11 3	2			3	2
					Dire	use A	55622211	ient m	emoa	5			1.	
CIFT	TEST	T (15)		an an an	DITE	E (10)						1	nairect	
Quiz-	-I (5)	(15)			Reco	rd (10)					C	ourse e	end sur	vey
CIE T	EST-	II (15)			Total	CIE: 6	0 mar	ks						
Quiz-	-II (5)				Seme	ester Er	nd Exa	minati	ion (40)) Mark	S			
List o	of Exp	erimen	ts						·····				~	2
1. V	erific	ation of	Ohm'	s Law.										
2. V	erific	ation of	f Kirch	off's la	w.							сн 12 ¹¹		
3. N	leasu	rement	of pov	ver and	d pow	er facto	or in se	eries Rl	LC cire	cuit.				
4. N	leasu	rement	of pov	ver and	d powe	er facto	or in pa	arallel	RLC c	ircuit.				
$\frac{5. \text{ N}}{4}$	leasu	rement	of trar	nstorm	er Effi	ciency	and vo	oltage	regula	tion.				
0. 1 7 T	orque	Speed	Chara	cterist		C serie	es moto	or.						
7. 1 8 T	orque	e Speed	Chara	cterist	ic of D	C shur	nt moto	or.	0					
$\frac{0.1}{9.V}$	erify	the VI (harac	toristic	e of Pl	V diod	on mote	or.					- 18	
10. V	erify	the VI (Charac	teristic	s of 7	ener di	ode							
11. V	erify	the VI (Charac	teristic	s of SC	CR.	Juc		-					
12. V	erify	the VI (Charac	teristic	s of M	OSFET	Г.							
					· · · · · · · · · · · · · · · · · · ·									

12.1.2024 Version 1.0

Programme: B.E / B. Tech

Total Hours: 60 Hrs Regulations 2023

Dr. P. SURESH Professor and Head Department of Mechatronics Engineering SONA COLLEGE OF TECHNOLOGY Junction Main Road, SALEM - 636 005.

Ph:0427-4099999

Semester II

1123	OL1201		French - II	L	Т	P	J	C
		•		1	0	0	0	1
Course (Outcomes		-		L			
At the er	nd of the cour	se, the student	will be able to					
CO1:	Accept and	refuse of an inv	vitation, give some instruction of do's	s and do	n'ts, co	onverse	in	
COL	Describe	centres, write a	in invitation					
CO2:	Talk about	things around w	tee in a city, ask further details, desci	ribe one	's home	etown		
	express obl	igation and proh	ibition, sell an object in online	oards, ex	press a	gree an	d disag	ree,
CO4:	about weath	one's goals, exp ner, draft a mail	ress one's feelings, write a list of thi response	ngs to d	o, expr	ess an c	pinion	, tall
CO5:	Express on others, write	e's interest and e to ask for a hel	d wish, describe a pet animal, exp p, narrate a past event, write a biogr	press or aphy	ne's av	ersions	enco	urage
			Course Assessment methods					
		Dir	rect			Indirec	4	
CIE test I	(30)		Total CIE: 100 marks		ing Palagan			<u>in a sui</u>
CIE test I	I (30)		Semester End Examination: NIL	ŀ	Cour	se end s	urvev	
CIE test I	II (40)						, ai vey	
J nit 01:	2					3	Hours	
Hr 4: Imp <u>Hr 6: Qua</u> I nit 02:	erative senter ntitative artic	ice, food and be les, quantities, p	verages, utensils, cutleries, corckerie pronoun 'en', express appreciation, w	es vrite an i	nvitatio	on		
Hr 8. City	and localitie	Conjugation:	prendre adjectives of place pronou	· ·	l	3	Hours	
Hr 10: Tra Hr 12: As	ansport, leisur king informat	e activities, prep ion about a new	position of place, degrees of compari	ison				
Jnit 03:		1	1			3	Hours	
Hr 14: Th	ings in a store	, conjugation : f	aire, imparfait 2, passé composé				110415	
Hr 16: Th Hr 18: Im	ings in a repar perative negat	iring shop, comp tive, express obl	outer, relative pronouns: que and qui igation and interdiction, online sale a	and resp	onse			
nit 04:				A		3	Hours	
Hr 20: Pro	ofessions, con	jugation: croire,	voir, recent past tense	an is the average stars				
Hr 22: Tra	iveling formation	lities, expressing	g about health condition, future tense	;				
nit 05.	onoun COD, ta	alk about weathe	er condition, write about one's plans	and pro	jection	S		
Hr 26. Cit	izenship and	olidarity conju	action: connectes and coursis the	1		3]	Hours	
Hr 28: Im	parfait vs pass	é composé, nati	re and environment indirect proposition	vs penda	ant			
Hr 30: An	imals, conditi	onal, talk on sup	porting others, write a biography					
Theor	y: 15 Hrs	Tutorial:	Practical: Project:	1	Total	Hours:	15 Hrs	
TEXT BO	OKS		· · · · · · · · · · · · · · · · · · ·					
1. The	e course facul	ty will provide r	elevant audios, videos, handouts and	l notes.		1		-
2. Boo	oks : Saison (1	Méthode de fran	çais, cachier d'activités)					
3. Rel	erence books	: La conjugaiso	n, Dondon, Echo					
						A.	had	5 1

HOD HOD Dr. M.RENUGA, Professor & Head, Department of Humanities & Languages, <u>Sona College of Technology</u> B.E / B. Tech Regulations (223)

U23	OL1202		German - II		L	Т	P	J	C		
			5		1	0	0	0	1		
Course (Dutcomes	0 s		1	1		L	L			
At the er	nd of the cours	e, the student w	ill be able to								
CO1:	Use gramma	tical expressions	appropriately in day	y-to-day conver	sation.				5. 		
CO2:	Make them	frame simple sent	ences /questions.								
CO3:	Accentuate t	o start and sustai	n basic conversation	1		• • • • •					
CO4:	Helps them a	articulate thought	s in German	2							
CO5:	Identify the d	different forms of	the verb								
		(ourse Assessment	methods	*******						
		Direc	t				Indirac	•			
CIE test I	(30)		Total CIE: 100 mai	rks			manec	L			
CIE test I	I (30)		Semester End Examination: NIL Co			Cours	ourse end survey				
nit 01.	11 (40)										
Nominati	ve/accusative o	case, adjectives					3	Hours			
Modes of	transportation	orientation givi	na/undanatan dina ai				3 Hours				
	i unsportation,	, one mation, givi	ing/understanding si	nple directions							
10403 01							31	Hours			
nit 03:			·								
nit 03: • Fo	od and beverag	ges, Modal verbs	Separable verbs			L.					
nit 03: • Fo nit 04:	od and bevera	ges, Modal verbs	Separable verbs			I	31	Hours			
nit 03: • Fo nit 04: • Sin	od and beverages of the sentences of the	ges, Modal verbs, using modal / se	Separable verbs				3 1	Hours			
nit 03: • Fo nit 04: • Sin nit 05:	od and beverages of the sentences	ges, Modal verbs, s using modal / se	Separable verbs	· · · · · · · · · · · · · · · · · · ·			31	Hours			
nit 03: • Fo nit 04: • Sin nit 05: • Ar	od and beverages of sentences ticles of clothing	ges, Modal verbs, using modal / se	Separable verbs				3 I 3 I	Hours			
nit 03: • Fo nit 04: • Sin nit 05: • Ar Theor	od and beverages of sentences ticles of clothing y: 15 Hrs	ges, Modal verbs, using modal / se ng Tutorial:	Separable verbs parable verbs Practical:	Project:		Total	3 I 3 I Hours: 1	Hours Hours 15 Hrs			
nit 03: • Fo nit 04: • Sin nit 05: • Ar Theor TEXT BO	od and beverages mple sentences ticles of clothin y: 15 Hrs OKS	ges, Modal verbs, s using modal / se ng Tutorial:	Separable verbs parable verbs Practical:	Project:		Total	3 I 3 I Hours: 1	Hours Hours 15 Hrs			
nit 03: • Fo nit 04: • Sin nit 05: • Ar Theor TEXT BO 1. Net	od and beverages mple sentences ticles of clothin y: 15 Hrs OKS tzwerk A1	ges, Modal verbs, s using modal / se ng Tutorial:	Separable verbs parable verbs Practical:	Project:		Total	3 I 3 I Hours: 1	Hours Hours 15 Hrs			
nit 03: • Fo nit 04: • Sin nit 05: • Ar Theor 'EXT BO 1. Net	od and beverages mple sentences ticles of clothin y: 15 Hrs OKS tzwerk A1	ges, Modal verbs, using modal / se ng Tutorial:	Separable verbs parable verbs Practical:	Project:		Total	3 I 3 I Hours: 1	Hours Hours	,		

Professor & Head, Department of Humanities & Languages, Sona College of Technology, SALEM - 636 :

U23OL1203			Jananese - II		L	Т	P	J	C		
		4 	Japanese - 11			0	0	0	1		
Course Ou	tcomes					L	J		1		
At the end	of the cours	se, the student will	ll be able to								
CO1:	Use verbs ir	polite conversation	on or for dissuasion	and describe tw	o diff	erent ad	tivities				
CO2:	Demonstrate	e the application of	f causative verbs an	nd those that exp	ress al	bility of	r possib	ility a	nd		
	describe exp	periences				011109 01	P05510	inty, a	ii u		
CO3:	Use plain-st	yle expressions, th	ose that state opini	ons, and verbs a	nd adj	ectives	that go	with n	oun		
CO4:	Express sentences that use 'when' and 'if' and those that describe how services are given an received								n an		
CO5:	Read 126 le and II to pas	tters of Kanji, and s the Japanese Lar	l demonstrate adeq nguage Proficiency	uate knowledge Test (JLPT) for	of the the N	lesson 5 Level	s learnt	in Lev	vels		
-		Co	ourse Assessment	methods			1				
		Direct					Indirec	ł			
CIE test I (3	0)		Total CIE: 100 montes				Indifect				
CIE test II (30)		Semester End Examination: NIL			Courses and another					
CIE test III ((40)					Course end survey					
nit 01.											
Ir 1_2. Wor	de and verb	avprossing roque	eta / Vanii 1 10				3	Hours			
Hr 3-4: Ask	ing for perm	ission; making sta	tements to prohibi	t something / Ka	nji 11-	-20	Pa Pa				
Hr 5-6: Des	cribing two	activities / Kanji 2	1-30								
Jnit 02:							3 Hours				
Hr 7-8: Ve	rbs that exp	ress 'I have to'	Kanji 31-40	2 . B							
Hr 9-10: Ve	erbs which e	express ability or p	ossibility / Kanji 4	1-50							
<u>-tr 11-12: D</u>	escribing ex	perience / Kanji 5	1-60								
nit 03:							3	Hours			
Hr 13-14: P	lain-style ex	pressions / Kanji 6	51-70								
Ir 15-16: E	xpressions l	ike 'I think that	' / Kanji 71-80								
Hr 17-18: Q	ualifying no	ouns with verbs and	d adjectives / Kanji	81-90							
nit 04:							3 Hours				
Hr 19-20: E	xpressions u	ising 'When' /	Kanji 91-100								
1F 21-22: D	escribing th	e giving and receiv	ving of services / K	anji 101-110							
11 23-24. E	xpressions u	sing II / Kan	iji 111-126			1					
Int US:	anarina far	U DT NS	5 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000				3	Hours			
Ir 27-20. Pr	eparing for	ILPT N5		· · ·							
Ir 29-30: Pr	eparing for	JLPT N5									
Theory:	15 Hrs	Tutorial:	Practical:	Project:		Total	Hours:	15 Hrs	5		
EXT BOO	KS		-l								
1. The c	ourse facult	y will provide han	douts / notes / cour	se material.		14			- A 18		
2. Book	s on Basic J	apanese language	available in the col	lege library.					. '		
				2			d.	had	F.12		
							н	OD 13	M		
						-					

13.2.2024 Version I.0

Programme: B.E / B.Tech

Professor & Head, Department of Humanities & Languages, Sona College of Technology, B.E / B. Tech Regulations 2636 005.

U23OL1204			Korean - II		L	T	Р	J	C	
					1	0	0	0	1	
Course (Jutcomes									
CO1.	Identify tim	se, the student w	ill be able to	× ' 3						
<u> </u>	Identify the date and days of the week									
CO3:	Explain loc	Explain location and places								
CO4:	Explain des	Explain location and places								
CO5:	Construct simple sentences / questions								-	
			Course Assessment	methods						
		Dire	ct	memous		• ••				
CIE test 1	(30)		Total CIE: 100 ma	rke			indirec	<u></u>		
CIE test I	I (30)		Somostor End Exemination MI			Courses on A				
CIE test I	II (40)		Semester End Exa			Cours	e enu s	survey		
Jnit 01: 7	Time	• =		3			3 Hours			
Talking a	bout time					<u> </u>		110415	•	
Jnit 02: I	Date						3	Hours		
Talking a	hout dates and	days of the weel	,					110015		
Talking a	bout doing so	mething in the pas	st							
Unit 03: Location						3 Hours				
Talking a	bout location									
Talking a	bout doing soi	mething at a locat	ion							
Jnit 04: Direction						3 Hours				
Talking a	bout direction	S								
nit 05: Future							3 Hours			
Talking a	bout doing sor	nething in the fut	ure					e.		
Talking al	bout plans for	the future								
The	15 Har		D. cl. i							
	ry: 15 mrs	I utorial:	Practical:	Project:		Total I	Hours:	15 Hrs	1	
IEFEREN(to Koreon	<u> </u>								
1										

mp- 2 m = 2/24.

HOD

Dr. M.RENUGA, Professor & Head, Department of Humanities & Languages, Sona College of Technology, SALEM - 635 000.

B.E / B.. Tech Regulations 2023