

**DEPARTMENT OF GENERAL ENGINEERING**  
**ACTIVITY REPORT**  
**2019 - 2020**

**PAC MEETING**



Pac meeting conducted for firstyear general engineering on 14.6.2019

- **APEX MEETING:**

Apex Committee meeting was held on 19.06.2019. The members of all the departments of PAC and APEX committee have gone through the present C scheme syllabus and approved the same

**4 AWARDS RECEIVED BY THE FACULTY / STUDENTS**

- **FACULTY :**

**I SEMESTER**

- **13** Centum results were produced in October 2019 I semester Examinations.

Subject code	subject	Name of the faculty	Section wise
101	Communication English-I	Ms. R.Ramani Devi Ms. S.Uma Ms. D.Britishiya	D E,B,F A
102	Engg. Mathematics - I	Mr. G. Senthilkumar	C
105	Engg. Chemistry - I	Ms. L. Sasikala	B

		Ms. G. Sengodi	A,E
106	Engg. Graphics - I	Mr. S. Michael Raj MrA.JahirHussian Mr .A.Freeman	E D,B A

## II SEMESTER:

➤ 36Centum results were produced in April 2020 II semester Examinations.

Subject code	subject	Name of the faculty	Section wise
201	Communion English-II	Ms. R.Ramani Devi Ms. S.Uma Ms. D.Britishiya	C,D E,B,F A
202	Engg. Mathematics - III	Ms.P.Santhi Ms. K.Neelavathi Mr. G. Senthilkumar	A, F C,E B,D
203	Engg. Mathematics - IV	Ms.P.Santhi Ms. K.Neelavathi Mr. G. Senthilkumar	B, E A,D C
104	Engg Physics-II	Ms. G. Shanthi Ms. S.Balamurugan Ms. P. Gayathri	E,F C,D A,B
105	Engg. Chemistry - I	Ms. L. Sasikala Ms. G. Sengodi	B A,E
106	Engg. Graphics - I	Mr. S. Michael Raj MrA.JahirHussian Mr .A.Freeman	E B,D,F A,C

## STUDENTS:

## SPORTS AWARDS:

➤ The following first year students got the athletic track and field events .

S.NO	EVENT	NAME OF THE	DEPARTMENT	PRIZE
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		STUDENT		
1.	Shot put	K. Sriramar	ECE	I
2.	100 MTS	K. Sriramar	ECE	I II
3.	Long jump	K. Sriramar	ECE	I
4.	200 mts	B.Susmanth	ECE	I
5.	400 Mts	M.Dharani	AA	I II
6.	4x 100 mts relay	S.Abirami S.A.Kaviya K.Sowmiya M.Dharani	AA	I
7.	Volley ball	S.Abirami S.A.Kaviya K.Sowmiya M.Dharani	AA	winner
8.	Volley ball	M.Divya P.K. Gopikashri	AA	Runner
9.	Throw ball	S.Abirami S.A.Kaviya K.Sowmiya M.Dharani	AA	Winner

- The following first year students participated in the Divisional Tournament at Kongunadu Polytechnic College Thottiyam from 28.01.2020 to 30.01.2020.

S.no	EVENT	NAME OF THE STUDENT	DEPARTMENT	PRIZE
1.	Chess	S.Abirami S.A.Kaviya P.K. Gopikashri	AA	Runner
2.	Hand ball	S.Abirami M.Divya	AA	III

		P.K. Gopikashri		
3.	KhoKho	S.Abirami M.Divya P.K. Gopikashri S.A.Kaviya	AA	I II
4.	Volley ball	S.Abirami M.Divya P.K. Gopikashri	AA	IV
8.	Basket ball	D.Viswanathan KJ. Advait Viswa K. Dhanush	EEE AA ECE	Runner
9.	Hockeyl	H.S.Alideen S. Harish R. Nizar Kani A. Abbas Mandri	ECE ECE CT CT	Winner

## DEPARTMENT ACTIVITIES

### RESULTS:

### OCTOBER 2019 - I SEMESTER

**OVERALL PERCENTAGE: 80 %**

S.No.	Department	Number of Students			Percentage
		Appeared	Passed	failed	
1.	ARCH	27	23	4	85
2	CIVIL	24	22	2	92
3	CT	44	33	11	75
4	ECE	50	32	18	64
5	EEE	59	47	12	80
6.	MECH	118	99	19	84
	<b>TOTAL</b>	<b>322</b>	<b>256</b>	<b>66</b>	<b>80</b>

**APRIL 2020 - II SEMESTER**

**OVERALL PERCENTAGE: 100 %**

S.No.	Department	Number of Students			Percentage
		Appeared	Passed	failed	
1.	ARCH	27	27	-	100
2	CIVIL	24	24	-	100
3	CT	40	40	-	100
4	ECE	51	51	-	100
5	EEE	58	58	-	100
6.	MECH	113	113	-	100
	TOTAL	313	313	-	100

**TOPPERS IN OCT2019 AUTONOMOUS EXAMINATIONS**

**I SEMESTER**

S.NO	NAME OF THE STUDENT	DEPARTMENT	MARK SCORED (900)	RANK
1	ABIRAMI.S	ARCH	894	I
2	DIVYA.M	ARCH	886	II
3	AHALYA.S	ARCH	871	III
4	GOBIKA SRI.P.K	ARCH	828	IV
5	TAMIL KUMARAN.S	MECH	812	V
6	FIRDHOUS SHAHNAS.R	ARCH	808	VI
7	VISHNUVARMA.S	MECH	799	VII
8	VIJAY.R	MECH	792	VIII
9	KANNA.N	CT	785	IX
10	ANNAKAMATCHI.R	ECE	769	X

**TOPPERS IN APR 2020 AUTONOMOUS EXAMINATIONS**

**II SEMESTER**

S.NO	NAME OF THE STUDENT	DEPARTMENT	MARK SCORED (900)	RANK
1	ABIRAMI.S	ARCH	900	I
2	AHALYA.S	ARCH	890	II
3	DIVYA.M	ARCH	890	II
4	FIRDHOUS SHAHNAS.R	ARCH	872	IV
5	GOBIKA SRI.P.K	ARCH	872	IV
6	KANNA.N	CT	867	VI
7	TAMIL KUMARAN.S	MECH	858	VII
8	SHEIK ABDULLA.A	MECH	856	VIII
9	ANNAKAMATCHI.R	ECE	850	IX
10	DHARANI.M	ARCH	850	IX

**Autono**

**mous Examination Results October - 2019**

- The following 22 students Secured Centum Marks in the October-2019 Autonomous Examination.

S.NO	NAME OF THE STUDENTS	BRANCH	SUBJECT	FACULTY HANDLED
1	ABIRAMI.S	ARCH	ENGINEERING MATHEMATICS –I ENGINEERING MATHEMATICS –II ENGINEERING PHYSICS -I	Ms.P.SANTHI
			ENGINEERING CHEMISTRY -I	Ms.G.SENGODI
2	AHALYA.S	ARCH	ENGINEERING CHEMISTRY -I	Ms.G.SENGODI
3	DEVI.C	ARCH	ENGINEERING CHEMISTRY -I	Ms. G.SENGODI
4.	DHARANI.M	ARCH	ENGINEERING CHEMISTRY -I	Ms. G.SENGODI
5.	FIRDHOUS	ARCH	ENGINEERING CHEMISTRY -I	Ms. G.SENGODI

	SHAHNAS.R			
6.	DIVYA.M	ARCH	ENGINEERING MATHEMATICS –I ENGINEERING MATHEMATICS –II ENGINEERING CHEMISTRY -I	Ms.K.NEELAVATHI Ms.P.SANTHI Ms. G.SENGODI
7.	GOBIKA SRI.P.K	ARCH	ENGINEERING CHEMISTRY -I	Ms. G.SENGODI
8.	AYYAPPAN.R	CT	ENGINEERING CHEMISTRY -I	Dr. H.PARVEEN Ms.L.SASIKALA
9.	KANNA.N	CT	ENGINEERING CHEMISTRY -I	Dr. H.PARVEEN Ms.L.SASIKALA
10.	MADHAVAN.P	CT	ENGINEERING CHEMISTRY -I	Dr. H.PARVEEN Ms.L.SASIKALA
11.	ANNAKAMATCHI.R	ECE	ENGINEERING CHEMISTRY -I	Dr. H.PARVEEN Ms. G.SENGODI
12.	DHINAGAR.S	EEE	ENGINEERING CHEMISTRY -I	Ms.L.SASIKALA
13.	DHINESH.R	EEE	ENGINEERING CHEMISTRY -I	Ms.L.SASIKALA
14.	YUGENDIRAN.D	EEE	ENGINEERING CHEMISTRY -I	Ms.L.SASIKALA
15.	AJITH.L	MECH	ENGINEERING CHEMISTRY -I	Ms. G.SENGODI
16.	ESWARA MOORTHY.B	MECH	ENGINEERING CHEMISTRY -I	Ms. G.SENGODI
17.	NAVEENKUMAR.G	MECH	ENGINEERING CHEMISTRY -I	Ms. G.SENGODI
18.	SATHEESH.G	MECH	ENGINEERING PHYSICS –I ENGINEERING CHEMISTRY -I	Ms.P. GAYATHRI Ms. L.SASIKALA
19.	TAMIL KUMARAN.S	MECH	ENGINEERING CHEMISTRY -I	Ms.L.SASIKALA
20.	VIGNESH.R	MECH	ENGINEERING CHEMISTRY -I	Ms. L.SASIKALA
21.	VIJAY.R	MECH	ENGINEERING CHEMISTRY –I ENGINEERING PHYSICS –I	Ms.L.SASIKALA Ms.P. GAYATHRI
22.	VISHNUVARMA.S	MECH	ENGINEERING CHEMISTRY –I ENGINEERING GRAPHICS –I	Ms.L.SASIKALA Mr.A. JAHIRUSSAIN

### **AUTONOMOUS EXAMINATION RESULTS APRIL -2020**

- The following student Secured Centum Marks in the April -2020Autonomous Examination

Sl.No	Name of the Students	Branch	Subject	Faculty Handled
1	S.ABIRAMI	ARCH	COMMUNICATION ENGLISH-II	Ms.S.Uma
			ENGG. MATHEMATICS-III	Ms. K.Neelavathi
			ENGG. MATHEMATICS- IV	MsP.Santhi
			ENGG. PHYSICS –II	Ms. G. SHANTHI
			ENGG. CHEMISTRY –II	Ms. G.Sengodi
			ENGG GRAPHICS -II	Mr. S. Michael raj

### ➤ INDUCTION PROGRAMME:

When new students enter an Institution , they come with diverse thoughts , backgrounds and preparation . To help them adjust to the new environment and inculcate in them the ethos of the institution of larger purpose an orientation programme called Induction Programme was conducted for one week from 17.06.2019 to 21. 06 .2019.

Normal classes started only after the Induction Programme is over . Its purpose is to make the students feel comfortable in the new environment , create bonding in the batch as well as between the faculty and students.



**I YEAR INAUGURAL FUNCTION 2019**



**Principal Addressing the Parents of I Year**



**Yoga conducted during Induction Programme**



**Inter departmental Visit arranged during induction programme**

**ANNAI MANIAMMAIYAR 100<sup>TH</sup> BIRTHDAY CELEBRATION :**

- First Year students planted saplings in our college campus on the Annai Maniammai 100<sup>th</sup> Birthday celebration :
- Principal addressed the students of I year regarding Annai Maniammai Contribution towards society.



### **SCIENCE EXIHIBITION :**

First Year students participated in the Science Exhibition which is conducted to create a scientific temper and also to gain a thorough knowledge in the basic science subjects..



### **FOUNDERS DAY CELEBRATION:**

#### **➤ BLOOD DONATION CAMP**

The students of First year participated in the Blood Donation camp conducted for the celebration of our Founder Chairperson's birthday.

➤ **TREE PLANTATION:**

The students of First year participated in the Tree Plantation conducted for the celebration of our Founder Chairperson's birthday.



➤ **ESSAY COMPETITION:**

The students of First year participated in the essay Competition conducted for the celebration of our Founder Chairperson's birthday.

➤ **DRAWING COMPETITION:**

The students of First year participated in the Drng Competition conducted for the celebration of our Founder Chairperson's birthday.

**PARENTS-TEACHERS MEETING:**

Parents Teachers meeting was organized on 13.01.2020. Feedback forms were collected and analysed. 200 parents have attended the meeting. They were informed about their wards Academic Performance, Attendance Particulars and also about the coaching classes conducted to the failure students.



### E-QUIZ :

- E-Quiz Conducted by our staff members at our Polytechnic during the pandemic situation for various subjects.

S.NO	TOPIC	DURATION	NO.OF STUDENTS PARTICIPATED
1.	E-Quiz on Basics of Physics	18.06.20 – 30. 06.20	132
2.	E-Quiz on Basic Chemistry	18.06.20 – 30. 06.20	90
3.	E-Quiz on Basic Mathematics	18.06.20 – 30. 06.20	98

### STAFF DEVELOPMENT PROGRAMME :

#### ONLINE QUIZ:

The following staffmembers of I Year have attended the Online Quiz conducted by various Polytechnic and have got Appreciation Certificates during the Corona Virus Pandemic time.

S.No.	Faculty Name	Subject	Topic	Name of the Polytechnic

1.	Mc. G. Shanthi	Physics	E-Quiz on Basic Physics	SSPT Polytechnic College,Puthur
2.	Mr. R.Ayyanathan	English	E- Quiz on soft skill	AMK Technology Polytechnic College, Chennai
3.	Ms. P.Santhi	Mathematics	Online Quiz on Statics	Sankar Polytechnic College ,Thirunelveli
4.	Ms. K. Neelavathi	Mathematics	Amazing facts about Mathematics	Sankar Polytechnic College ,Thirunelveli
5.	Ms. G. Sengodi	Chemistry	Basics Chemistry	Govt. Polytechnic College , Mellur
6.	Ms. S. Uma	English	E Quiz on English Grammer	Govt. Polytechnic College , Mellur
7.	Ms. S. Jayasudha	Mathematics	Online Quiz on Mathematics	VDP Polytechnic College, Nagapattinam
8.	Ms. M. Gayathri	Physics	Basics of Physics	ADJD Polytechnic College, Nagapattinam

#### **YOGA CLASS:**

All the faculty of I Year attended the Yoga Classes organized by the Staff Development cell at our institution to enrich our health and to be fit and fine..

#### **HEALTH AWARENESS PROGRAMME:**

All the faculty of I Year attended the Corona Virus Awareness Programme Organized by the Staff Development cell at our institution which highlighted the preventive measures that are to be followed during this Pandemic situation.

#### **EXTRA CURRICULAR ACTIVITIES:**

**NCC:**

- 12 Girl cadets are enrolled for the academic year 2019 – 2020
- 21 Boy cadets are enrolled for the academic year 2019 – 2020

**NSS:**

- 100 students of I Year have attended the NSS rally to create Awareness on Road Safety.
- 100 students of I Year have attended the NSS rally on Water Conservation was conducted on 22.07.2019
- I year students participated in the Awareness on Usage of Fire Extinguisher was conducted on 19.08.2019 .
- 50 students have attended the NSS Special Camp held at Kuruvadipatti From 24.02.2020 to 01.03.2020.

**PERSONALITY DEVELOPMENT PROGRAMME**

- Mr Periyarselvam gave a speech to the I year students on Organisation Behaviour and Periyar thoughts.



- Mr Richard Raj delivered a lecture on communication English to the I year students to develop their spoken English.



- MrR.Ayyanathan gave a speech to the First students during the Induction Programme on “Personality Development” and “Adolescent Difficulties”.



## COMMUNICATION ENGLISH -I

### Changes incorporated from ‘ DOTE’ ‘N’ scheme to ‘D’ scheme

S.NO	SUBJECT	UNIT	ADDITION	DELETION	REMARKS
1.			Singular and Plural numbers in English	-	Added to apply functional grammar to pristine presentations in English.
			Note-making and Summarizing.	-	Added to enrich note taking skill.
		<b>UNIT - 3</b> Situational English	Rearranging Jumbled Words	-	Added to enhance the vocabulary enrichment to cater to the need of changing linguistic environment.
		<b>UNIT – 4</b> Creative English	Describe your travel experience/ Hobbies / Excursion.	-	Added to understand and acquire new creative ideas to frame new sentences.
		<b>UNIT – 5</b> English for Scholarly Presentations	Poem Mending wall- by Robert Frost	-	Added to acquire and employ new structures in scholarly presentations.

## COMMUNICATION ENGLISH -I

### Changes incorporated from C scheme to D scheme

S.NO	SUBJECT	ADDITION	DELETION	REMARKS
	<b>COMMUNICATION ENGLISH -I D101</b>	<b>UNIT –I</b> <ul style="list-style-type: none"> <li>Parts of speech,</li> <li>Functional Units</li> <li>Framing yes/ no question,</li> <li>Active&amp; passive voice</li> <li>Framing wh- question</li> <li>Preposition.</li> <li>Singular &amp; Plural</li> </ul>		*As per Dote ‘N’ Scheme syllabus.  * Shifted from II sem to I sem as per Dote ‘N’ Scheme Syllabus.  * Shifted from II unit to I unit as per Dote ‘N’ scheme Syllabus.  Added to apply functional grammar to pristine presentations in English.
		<b>UNIT II</b> Vocabulary Enrichment <ul style="list-style-type: none"> <li>Homophones</li> <li>Note-making and Summarizing</li> </ul>		*As per dote ‘N’ scheme syllabus  * Shifted from I Unit to II Unit as per Dote ‘N’ Scheme Syllabus.  *Added to enrich the note taking skill to store the main points.
			<ul style="list-style-type: none"> <li>Odd words</li> <li>Odd words based on verb form</li> </ul>	Removed as per Dote ‘N’ scheme syllabus
		<b>UNIT III</b> Situational English <ul style="list-style-type: none"> <li>Short message for e-communication</li> <li>Writing the essentials</li> </ul>		*As per dote ‘N’ scheme Syllabus  *Shifted from IV Unit to III unit as per Dote ‘N’ Scheme Syllabus.

		<ul style="list-style-type: none"> <li>Letter writing for academic purpose.</li> <li>Comprehension</li> <li>Re-arranging jumbled words</li> </ul>		<p>*Shifted from V Unit to III unit as per Dote 'N' Scheme Syllabus.</p> <p>*Shifted from I unit to III Unit as per Dote 'N' Scheme Syllabus.</p> <p>Added to enhance the skill of framing sentences.</p>
			<ul style="list-style-type: none"> <li>Conversion of sentence</li> <li>Clause</li> <li>Articles</li> </ul>	Removed as per Dote 'N' scheme syllabus
		<b>UNIT IV</b> <ul style="list-style-type: none"> <li>Review writing (Book/ movie/ Tv programme</li> <li>Visual description</li> <li>Advertisement writing</li> <li>Word could</li> <li>Transforming verbal passage into graphics</li> <li>Describe your travel experience / Hobbies/ Excursion.</li> </ul>		<p>*As per Dote 'N' scheme syllabus</p> <p>*Added to develop the creative skill of the students.</p>
			<ul style="list-style-type: none"> <li>Instruction for direction</li> <li>Linkers</li> </ul>	Removed as per Dote 'N' scheme syllabus
		<b>UNIT V</b> English for scholarly presentation/ Fluency <ul style="list-style-type: none"> <li>"A Snake in the Grass" by R.K. Narayan</li> <li>"Of Parents and Children" by Francis Bacon</li> <li>"On His Blindness" by John Milton</li> <li>"When I Have Fears" by John Keats</li> <li>Mending Wall by Robert frost</li> </ul>		<p>* As per Dote 'N' scheme syllabus.</p> <p>*Added to improve the</p>

				scholarly presentation and fluency of the students.
			Prose <ul style="list-style-type: none"> <li>• Of trains and travelers</li> <li>• Global warming</li> </ul> Poetry <ul style="list-style-type: none"> <li>• Hope</li> </ul>	Removed as per Dote 'N' scheme syllabus

### COMMUNICATION SKILL PRACTICAL

(Included in I sem, as per DOTE 'N' scheme )

**Changes incorporated from ' DOTE' 'N' scheme to 'D' scheme**

COURSE & Course Code	UNIT	ADDITION	DELETION	REMARKS
<b>COMMUNICATION SKILL PRACTICAL &amp; D108</b>	<b>UNIT – 1</b> Listening Skill	Introduction to Phonetic		As per Dote 'N' scheme syllabus.  To improve their pronunciation skill.
	<b>UNIT – 2</b> Reading Skill	-	-	As per Dote 'N' scheme syllabus.
	<b>UNIT - 3</b> Speaking Skill	Role play		As per Dote 'N' scheme syllabus.  To enhance the conversational skill
	<b>UNIT – 4</b> Writing Skill	-	-	As per Dote 'N' scheme syllabus.

**PERIYAR CENTENARY POLYTECHNIC COLLEGE**

**VALLAM – THANJAVUR- 613 403**

**FIRST YEAR GENERAL ENGINEERING**

**ENGINEERING MATHEMATICS - I**

**Changes incorporated from N scheme of DOTE to D scheme**

Semester : I

Subject Code : D 102

**ENGINEERING MATHEMATICS – I**

S.No	SUBJECT	ADDITION	DELETION	REMARKS
1	ENGINEERING MATHEMATICS –I D102	Unit -I Types of Eigen values	-	Able to enhance the knowledge of Eigen vectors.
2		Unit -II Argand diagram- 3 points Form a triangle ( Equilateral, isosceles, right angle triangle) -	-	To acquire the knowledge of triangle
3		Unit -III Laws of secant and Laws of cosecant	-	More knowledge about inverse trigonometric functions
4		Unit -IV	-	As per DOTE N - scheme syllabus
5		Unit -V	-	As per DOTE N - scheme syllabus

## ENGINEERING MATHEMATICS- I

### Changes incorporated from C Scheme to D scheme

S.No	Subject	Addition	Deletion	Remarks
1.	ENGG MATHS-I  D102	<p><b>UNIT I</b></p> <p><b>ALGEBRA</b></p> <p>Applications of Matrices and determinants:</p> <ul style="list-style-type: none"> <li>Reducing a matrix into triangular and echelon form</li> <li>Properties of determinants, product of determinants</li> <li>Matrix inversion method</li> <li>Gaussian Elimination method-simple problems</li> <li>Characteristic equation- Eigen values , &amp; Eigen vectors of real matrix- Consistency &amp; inconsistency of system of linear equations.</li> </ul> <p>Types of Eigen values</p> <p>Binomial Theorem</p> <p>Applications of Binomial</p>		<p>In D Scheme EM-I and EM-II are merged into EM-I</p> <p>As per DOTE N-Scheme</p> <p>To acquire deep knowledge about Eigen values</p> <p>Shifted from unit II to unit I</p> <p>To gain knowledge about applications of Binomial Theorem</p>

		theorem-Finding the reminder - digit of a number and greatest term- simple problems		
		<b>UNIT II</b> Complex Number  Demoivre's Theorem and its Applications  Argand diagram- Three points form a triangles(Equilateral, isosceles & right angle triangle)  Applications of complex numbers: Ac circuits definitions- impedance and admittance – simple problems.		Shifted from EM- II to EM-I  Shifted from EM- IV to EM-I  To understand the applications of complex numbers  As per DOTE N-Scheme.

3.		<p><b>UNIT III</b> Trigonometry-I</p> <p>Trigonometry-II</p> <ul style="list-style-type: none"> <li>• Trigonometric functions- properties of Trigonometric functions - Relation between degree &amp; Radian measure-simple problems.</li> <li>• Applications of radian measure- Length of an arc of a sector-Linear and angular velocity</li> <li>• Properties of triangle- Law of sines, Law of cosines, principal value - properties of inverse trigonometric functions-simple problems.</li> </ul> <p>Law of secant, Law of cosecant</p>		<p>Shifted from Unit IV to Unit III</p> <p>Shifted from Unit V to Unit III</p> <p>As per DOTE N-Scheme</p> <p>To acquire more knowledge about inverse trigonometric functions.</p> <p>Shifted to EM-II</p>
4.		<p><b>UNIT IV</b></p> <p>Differential calculus –I Limits-Differentiation, Differentiation methods</p> <p>Trigonometrical limits -other limits-Applications of limits - simple problems. Differentiation:</p>	<p>Circles and family of circles</p> <p>Applications of differentiation</p>	<p>Shifted to EM-II</p> <p>Shifted from EM-II to EM-I</p> <p>Shifted to EM-II</p>

		Chainrule-simple problems Derivatives of parametric functions. Differentiation of one function with respect to another function -simple problems.		As per DOTE N-Scheme
5.		<b>UNIT V</b> Successive differentiation  Differential calculus –II Geometrical Applications <ul style="list-style-type: none"> <li>• Curvature and radius of curvature(Cartesian form only)</li> <li>• Envelope of family of curves- simple problems.</li> <li>• Jacobian and its properties</li> </ul> Partial differentiation:		Shifted from EM-II to EM-I   As per DOTE N-Scheme   Shifted from EM-IV to EM-I

**PERIYAR CENTENARY POLYTECHNIC COLLEGE**  
**VALLAM – THANJAVUR- 613 403**  
**FIRST YEAR GENERAL ENGINEERING**

**ENGINEERING PHYSICS- I**

**changes incorporated from N scheme of DOTE to D scheme**

S.NO	SUBJECT	ADDITION	DELETION	REMARKS
1.	<b>ENGINEERING PHYSICS –I &amp; D103</b>	<b>UNIT –I</b> SI units and Statics	-	To acquire knowledge in principle of moments.
		Experiment to verify the principle of moments.		
		<b>UNIT-II</b> Properties of matter	-	Able to derive the stoke's formula.
		Derivation of stoke's formula by the methods of dimension for highly viscous liquid.		
		<b>UNIT-IV</b> Dynamics –II	-	For understanding planetary motion.
		Kepler's law of planetary motion.		
		<b>UNIT-V</b> Sound and Magnetism Basic properties of magnetism - Properties of magnetic materials dia , para, ferro magnetic materials.	-	Gain knowledge about magnetic materials & its different properties.

**ENGINEERING PHYSICS –I**  
**Changes incorporated from C scheme to D scheme**

S.NO	SUBJECT	ADDITION	DELETION	REMARKS
1.	ENGINEERING PHYSICS –I & D103	UNIT –I SI units and Statics Conversion of horse power to watt and Calorie to joule .  Experiment to verify the principle of moments	-	As per DOTE N Scheme  For understanding the principle of moments
		UNIT-II Properties of matter  Derivation of stoke's formula by the methods of dimension for highly viscous liquid.	-  Thermodynamics, Liquefaction of gases, Non conventional energy	Shifted from II sem to I sem  Able to derive the Stoke's formula  Shifted from I sem to II sem
		UNIT –III Dynamics –I	-	No change .
		UNIT-IV Dynamics –II  Kepler's law of planetary motion.	Electricity	Shifted from II sem to I sem  For understanding planetary motion.  Shifted to II sem from I sem
		UNIT-V  Sound and Magnetism: Basic properties of magnetism -Properties of magnetic materials Para,dia , ferro magnetic materials.		To gain knowledge about magnetic materials and its different properties

## ENGINEERING PHYSICS PRACTICAL–I

changes incorporated from N scheme of DOTE to D scheme

S.NO	SUBJECT	ADDITION	DELETION	REMARKS
1.	<b>ENGINEERING PHYSICS PRACTICAL–I</b>  <b>D107</b>			<ul style="list-style-type: none"><li>• In DOTE physics practical semester exam conducted in <b>II</b> semester only.</li><li>• Instead of this it is proposed to conduct Physics practical exam in both I sem and II sem.</li><li>• All the First <b>8</b> experiments of N scheme are to be conducted in I semester.</li></ul>
		9. To verify the Principle of moments .	--	To understand the concept of principle of moments.
		10. Mini project – any one of the application.	--	Mini projects may be given to group of students to create scientific temper and for hands –on experience.

## ENGINEERING PHYSICS PRACTICAL-I

### Changes incorporated from C scheme to D scheme

S.NO	SUBJECT	ADDITION	DELETION	REMARKS
1.	ENGINEERING PHYSICS PRACTICAL-I & D106			<ul style="list-style-type: none"> <li>In DOTE Physics practical semester exam conducted in II semester only.</li> <li>Instead of this it is proposed to conduct Physics practical exam in both I sem and II sem</li> <li>All the First 8 experiments of DOTE N scheme are conducted in I semester.</li> </ul>
		<ul style="list-style-type: none"> <li>Stokes Experiment</li> <li>Comparison of Viscosities</li> </ul>		Shifted from II semester
		<ul style="list-style-type: none"> <li>Parallelogram law</li> <li>Lami's theorem</li> </ul>		Concurrent Forces Experiment is divided into two experiments.
		To verify the Principle of moments		To understand the concept of principle of moments
		Mini project – any one of the application.		Mini projects may be given to group of students to create scientific temper and for hands –on experience
			1.Laws of Resistances 2. Joule's calorimeter 3. Copper Voltameter	Shifted to II semester.
			1.Potentiometer 2.Meter bridge	Removed in DOTE N scheme syllabus.

## ENGINEERING PHYSICS PRACTICAL–II

changes incorporated from N scheme of DOTE to D scheme

S.NO	SUBJECT	ADDITION	DELETION	REMARKS
1.	<b>ENGINEERING PHYSICS PRACTICAL–II</b>  <b>D207</b>		-	<ul style="list-style-type: none"> <li>In DOTE physics practical semester exam conducted in <b>II</b> semester only.</li> <li>Instead of this it is proposed to conduct Physics practical exam in both I sem and II sem.</li> <li>All the remaining <b>8</b> experiments of DOTE N scheme are to be conducted in II semester.</li> </ul>
		9. To verify the Ohm's Law 10. Mini project – any one of the application.	-	To understand the concept of Ohm's Law  Mini projects may be given to group of students to create scientific temper and for hands –on experience
			Young's modulus-uniform bending	Removed in DOTE N scheme syllabus

			method	
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## ENGINEERING PHYSICS PRACTICAL–II

### Changes incorporated from C scheme to D scheme

S.NO	SUBJECT	ADDITION	DELETION	REMARKS
1.	ENGINEERING PHYSICS PRACTICAL–II & D206			<ul style="list-style-type: none"> <li>All the remaining <b>8</b> experiments of <b>N</b> scheme are to be conducted in II semester.</li> </ul>
		<ul style="list-style-type: none"> <li>Laws of Resistances</li> <li>Joule's calorimeter</li> <li>Copper voltameter</li> </ul>		Shifted from I sem to II sem
		<ul style="list-style-type: none"> <li>To verify the Ohm's Law</li> </ul>		To understand the concept of Ohm's Law
		<ul style="list-style-type: none"> <li>.Mini project – any one of the application.</li> </ul>		Mini projects may be given to group of students to create scientific temper and for hands _on experience
			1.Comparison of viscosities 2. Stoke's method	Shifted to I sem from II sem
			1.Young's modulus 2.Spectrometer- Angle of minimum Deviation 3.Surface tension	Removed in DOTE N scheme syllabus.

**PERIYAR CENTENARY POLYTECHNIC COLLEGE**  
**VALLAM – THANJAVUR- 613 403**  
**FIRST YEAR GENERAL ENGINEERING**

**ENGINEERING CHEMISTRY-I**

**Changes incorporated to N scheme of DOTE to D scheme**

<b>S.NO</b>	<b>SUBJECT</b>	<b>ADDITION</b>	<b>DELETION</b>	<b>REMARKS</b>
1.	<b>ENGINEERING CHEMISTRY –I &amp; D104</b>	<b>UNIT –I</b>  Bohr’s Atomic Model	-	To Acquire Knowledge and understanding of Basic Atomic Theory
		<b>UNIT-II</b>  Emulsion definition, types and properties	-	To get knowledge about types of Emulsions and its properties.
		<b>UNIT-III</b>  Extraction of Aluminium	-	To gain knowledge about Extraction of Aluminium from its ores.
		<b>UNIT-IV</b>	-	No Change.  Followed same as DOTE N Scheme
		<b>UNIT-V</b>	-	No Change.  Followed same as DOTE N Scheme

## ENGINEERING CHEMISTRY-I

### Changes incorporated from C scheme to D scheme

S. NO	SUBJECT	ADDITION	DELETION	REMARKS
1.	<b>ENGINEERING CHEMISTRY –I &amp; D104</b>	<b>UNIT –I</b> <b>1.1 Atomic Structure</b> Extra nuclear part-filling up of electrons - aufbau principle – s-p-d-f orbitals- electronic configuration –definition of atomic mass, equivalent mass, valency (Definition only)  Bohr’s Atomic Model  <b>1.2 Periodic Table</b> Modern Periodic law-periodic classification of elements – features of modern periodic table - properties of s-p-d-f block elements.  <b>1.3 Acids and Bases</b> Properties of acids and bases		As per the DOTE N Scheme syllabus.   To understand the Basic atomic theory.  As per the DOTE N Scheme syllabus.  As per the DOTE N Scheme syllabus.
			Avogadro’s Hypothesis and Avogadro’s number	Removed in DOTE N Scheme Syllabus
		<b>UNIT-II</b> <b>Surface Chemistry</b> <b>2.1.Colloids</b> Application –Artificial rain  Emulsion – definition – Types and properties.  <b>2.2.Nanotechnology</b> properties-Application of nanotechnology-Engineering  <b>2.3 Catalysis</b>  Active centre		As per the DOTE N Scheme syllabus.  To gain knowledge about types of Emulsion and its properties.  As per the DOTE N Scheme syllabus.  Shifted from III unit to II unit  As per the DOTE N Scheme syllabus.

			2.1.Solution	Removed in DOTE N Scheme Syllabus
		<b>UNIT –III</b> <b>Minerals and metallurgy</b> <b>3.1.</b> Mineral -Minerals of Tamilnadu -sources and uses (Basics concepts only) - Extraction of Iron- Blast furnace, cast iron- steel manufacture-Bessemer converter- heat treatment of steel - hardening-annealing-tempering <b>3.2Extraction of Tungsten and Titanium</b> Extraction and uses of Aluminium. <b>3.3 Powder metallurgy</b> powder metallurgical process - Blending, Compacting, Sintering-Finishing		As per the DOTE N Scheme syllabus.  Shifted from II Semester to I Semester To understand the Extraction of Aluminium from its ore. Shifted from II Semester to I Semester As per the DOTE N Scheme syllabus.
			3.1.Technology of water	Removed in DOTE N Scheme Syllabus
		<b>UNIT-IV</b> <b>Industrial Chemistry</b> <b>Nuclear Chemistry</b> <b>4.1.</b> Nuclear reaction-differences between nuclear reaction and ordinary chemical reaction Radioactive decay-alpha emission-beta emission-gamma emission-half-life period-simple problems Nuclear fission –nuclear fusion-chain reaction Components nuclear reactor, reactor core, nuclear reactor coolant, control rods, neutron moderator steam turbine Application of radioactive isotopes.		As per the DOTE N Scheme syllabus.

		<b>4.2 Cement and Ceramics,</b> <b>4.3.Refractories,</b>  <b>Glass</b>  <b>Composition glass.</b>		Shifted from II semester to I semester  Shifted from III Unit to IV Unit  As per the DOTE N Scheme syllabus
			4.1 Electrochemistry, 4.2 Electrochemical cell, 4.3Energy Sources	Removed in DOTE N Scheme Syllabus
		<b>UNIT-V</b> <b>Engineering Materials</b> 5.1. polymers 5.2. Abrasives 5.3. composite materials:  Classification of composites		Shifted from II Semester to I Semester   As per the DOTE N Scheme Syllabus

## ENGINEERING CHEMISTRY PRACTICAL-I

changes incorporated from N scheme of DOTE to D scheme

S.NO	SUBJECT	ADDITION	DELETION	REMARKS
1.	<b>ENGINEERING CHEMISTRY PRACTICAL-I D108</b>			<ul style="list-style-type: none"><li>• In DOTE chemistry practical semester exam conducted in <b>II</b> semester only.</li><li>• Instead of this it is proposed to conduct Chemistry practical exam in both I sem and II sem.</li><li>• All the First <b>10</b> experiments of N scheme are to conducted in I semester.</li></ul>
		Mini project – any one of the Application.	--	Mini projects may be given to group of students to create a scientific temper and for hands –on experience.

## ENGINEERING CHEMISTRY PRACTICAL-I

### Changes incorporated from C scheme to D scheme

S.NO	SUBJECT	ADDITION	DELETION	REMARKS
1.	<b>ENGINEERING CHEMISTRY PRACTICAL-I &amp; D107</b>			
		i) Estimation of strong Acid ii) Estimation of sodium hydroxide-standard solution-KOH iii) Comparison of strengths of two potassium permanganate standard solution-FAS		<ul style="list-style-type: none"> <li>In DOTE chemistry practical semester exam conducted in <b>II</b> semester only.</li> <li>Instead of this it is proposed to conduct Chemistry practical exam in both I sem and II sem.</li> <li>❖ All the First <b>10</b> experiments of <b>N</b> scheme are to be conducted in I semester.</li> </ul> <p>As per the DOTE N Scheme syllabus.</p>
			Estimation of sodium carbonate	Removed in N scheme syllabus
		<ul style="list-style-type: none"> <li>Water Analysis for residual chlorine</li> <li>Water quality testing pH</li> <li>Water quality testing TDS</li> </ul>		As per the DOTE N Scheme syllabus.

			comparison of strength of two Alkaline	Removed in N scheme syllabus
		❖ Mini project – any one of the Application.		Mini projects may be given to group of students to create a scientific temper and for hands-on experience

## ENGINEERING CHEMISTRY PRACTICAL-II

**changes incorporated from N scheme of DOTE to D scheme**

S.NO	SUBJECT	ADDITION	DELETION	REMARKS
1.	<b>ENGINEERING CHEMISTRY PRACTICAL-II D 208</b>			<ul style="list-style-type: none"> <li>In DOTE chemistry practical semester exam conducted in <b>II</b> semester only.</li> <li>Instead of this it is proposed to conduct chemistry practical exam in both I sem and II sem.</li> <li>All the remaining <b>10</b> experiments of N scheme are to be conducted in II semester.</li> </ul>
		Mini project – any one of the application.	--	Mini projects may be given to group of students to create a scientific temper and for hands –on experience

## ENGINEERING CHEMISTRY PRACTICAL–II

### Changes incorporated from C scheme to D scheme

S.NO	SUBJECT	ADDITION	DELETION	REMARKS
1.	<b>ENGINEERING CHEMISTRY PRACTICAL–II &amp; D207</b>	<ul style="list-style-type: none"><li>Salt analysis- Basics radicals- ferrous iron</li></ul>		<ul style="list-style-type: none"><li>All the remaining <b>10</b> experiments of N scheme are conducted in II semester. To understand the characteristics of substances.</li></ul>
			Effluent Analysis - cadmium	Removed in DOTE N Scheme Syllabus
		Mini project – Any one of the Application.		Mini projects may be given to group of students to create a scientific temper and for hands–on experience

# PERIYAR CENTENARY POLYTECHNIC COLLEGE

PERIYAR NAGAR –VALLAM –613 403 –THANJAVUR

## First Year General Engineering

### Engineering graphics-I

Changes incorporated from DOTE N scheme to D scheme

Course and course code	Unit	Addition	Deletion	Remarks
<b>Engineering graphics-I and D 105</b>	<b>UNIT-I</b> DRAWING OFFICE PRACTICE AND DIMENSIONING	Special Instrument and Templates	-	To familiar with multipurpose instrument
	<b>UNIT-II</b> GEOMETRIC CONSTRUCTIONS AND CONSTRUCTION OF CONICS	Application of Geometric construction	-	To enhance the skill in using and applying geometric construction
	<b>UNIT-III</b> PROJECTION OF POINTS & STRAIGHT LINES AND CONSTRUCTION OF SPECIAL CURVES	Three View Projection of Point,line	-	To understand and develop three view projection of an object
	<b>UNIT-IV</b> ORTHOGRAPHIC PROJECTIONS	Relative Position Of all six Views	-	To understand the advanced method of viewing all six relative positions

## ENGINEERING GRAPHICS-I

Changes incorporated from C scheme to D scheme

Course and course code	Unit	Addition	Deletion	Remarks
<b>Engineering graphics-I</b>	<b>UNIT-I</b> Drawing office practice and dimensioning	Special Instrument and Templates	-	To familiar with multipurpose instrument
	<b>UNIT-II</b> Geometric Constructions and construction of conics	Application of Geometric construction	-	To enhance the skill in using and applying geometric construction
	<b>UNIT-III</b> Projection of points & straight	Three View Projection of	-	To understand and develop three view

<b>and D105</b>	lines and construction of special curves	Point		projection of an object
	<b>UNIT-IV</b> Orthographic Projections	Relative Position Of all six Views	-	To understand the advanced method of viewing all six relative positions
	<b>UNIT-V</b> <b>Autocad</b>	-	<b>Autocad</b>	Difficult to learn in first sem