DISCIPLINE: MATH	SEMESTER:	NAME OF THE TEACHING FACULTY:
AND SCIENCE	SECOND	G. BALA KRUSHNA REDDY
		SANJUKTA DAS

Subject: Communicative English	No Of Days per week class allotted: 4	Semester from 29/01/2024 to 14/05/2024	
Weeks: 15	Class days	Theory (60)	Practical (60)
First	1 st	Unit:1 Literature appreciation: reading comprehension: a text related to birth order, practicing skimming the gist, scanning for necessary information	Listening skill: introduction, learning objectives
	2 nd	Reading comprehension: close reading for inference and evaluation, sentence making.	Listening skill: introduction, learning objectives
	3 rd	Reading comprehension: : main idea and supporting points increasing their anticipation skills (through word-guessing activity)	Key vocabulary: understand, comprehension, sequence, directions
	4 th	Reading comprehension exposing them to some vocabulary item they are responsible for in the exam such as: mediator, order, engaging and excel at through reading text.	Key vocabulary: understand, comprehension, sequence, directions
Second	1 st	Reading comprehension: adapting an interesting text, out of the students reading books and implementing in the classroom, unseen passage for Comprehension	Listening skill: materials, Length: 45 to 55 minute lessons

	2 nd	Reading comprehension: Note- making, practice samples	Listening skill: materials, Length: 45 to 55 minute lessons
	3 rd	Reading comprehension: Summarizing, practice samples	Listening dialogs
	4 th	Reading comprehension: Supplying a suitable title, practice more samples.	Listening dialogs
Third	1 st	Standing up for yourself	Listen and draw a story, read or makes up a story and as the students listen they draw the different scenes.
	2 nd	Standing up for yourself (cont.)	Listening skill: Listen and draw a story, read or makes up a story and as the students listen they draw the different scenes.
	3 rd	Standing up for yourself: question and answer discussion.	Speaking skill: reading aloud of dialogues, texts, poems
	4 th	Inchcape rock	Reading aloud of dialogues, texts, poems
Fourth	1 st	Inchcape rock (cont.)	Speeches focusing on intonation.
	2^{nd}	Inchcape rock: question and answer discussion.	Speeches focusing on intonation.
	3 rd	The magic of teamwork	Introducing oneself
	4 th	The magic of teamwork (cont.)	Introducing oneself
Fifth	1 st	The magic of teamwork (cont.)	Introducing others
	2 nd	The magic of teamwork: question and answer discussion.	Introducing others
	3 rd	To my true friend	Greeting, starting a

			Conversation
	4 th	To my true friend: question and answer discussion.	Greeting, starting a Conversation
Sixth	1 st	Unit: 2 Various paragraphs taken up for Practice keeping in view the Synonyms & antonyms	Talking about oneself
	2 nd	Various paragraphs taken up for Practice keeping in view the Synonyms & antonyms (cont.)	Talking about oneself
	3 rd	Same word used in different situations	Teach both formal and informal conversation skills
	4 th	Same word used in different situations	Teach both formal and informal conversation skills
Seventh	1 st	Single word substitute	Role-plays on any two- situations
	2 nd	Unit: 3 countable an uncountable noun	Role-plays on any two- situations
	3 rd	Articles and determiners	Telephonic conversation
	4 th	Modal verbs	Telephonic conversation
	1 st	Tenses: present	Developing oral communication skills
Eighth	2 nd	Tenses: past	Speaking skill: debate
-	3 rd	Future time	Personality development: initiation
	4 th	Voice-change	Physical appearance
Ninth	1 st	Subject-verb agreement	Physical appearance
	2 nd	Unit:4 Paragraph writing Meaning, features of paragraph writing (topic statement, supporting points	Audience purpose

		and plot Compatibility)	
	3 rd	Developing ideas into paragraphs (describing place/ person/ object /situation and any General topic of interest)	Audience purpose
	4 th	Notice, more samples of letters	Using mind maps and brainstorming to explore ideas.
Tenth	1 st	Agenda & minutes of meeting, more samples of letters	Using mind maps and brainstorming to explore ideas.
	2 nd	Report writing (format of a report, reporting an event / news),	Using role play/dialogue/drama
	3 rd	Report writing (format of a report, reporting an event / news) (cont.), more samples of letters	Using role play/dialogue/drama
	4 th	Writing personal letter, more samples of letters	Personality development
Eleventh	1 st	Letter to the principal, librarian, more samples of letters.	Interpersonal skills: appropriate use of non- verbal skills in face-to- face communication
	2 nd	Head of the department, and hostel superintendent, more samples of letters	Viva- voice
	3 rd	Writing business letters Layout of a business letter Letter of enquiry	Viva- voice,
	4 th	Writing business letters Layout of a business letter Letter of placing an order	Group-interviews,
Twelfth	1 st	Writing business letters Layout of a business letter execution of an order	Group-interviews,

	2 nd	Writing business letters Layout of a business letter Complaint, cancellation of an Order(features, format and example)	Group discussion
	3 rd	Job application (features, format and example)	Group discussion
	4 th	C.V.(features, format and example)	Seminars
Thirteenth	1 st	Unit-v Elements of communication introduction to communication 1. Meaning, definition and concept of communication 2. Good communication and bad communication	Seminars
	2 nd	3. Communication model One-way communication model and two-way communication model with examples	Interpersonal skills: seminars
	3 rd	4. Process of communication and factors responsible for it Sender, message, channel, receiver	Presenting in group discussion, seminars and conferences: group discussion
	4 th	Process of communication: Audience, feedback, noise, context	Group discussion
Fourteenth	1 st	Professional communication1. Meaning of professional communication2. Types of professional communication	Conferences
	2 nd	professional communication Formal or systematic communication Upward communication (how	Conferences

		it takes place, symbol, merits and demerits)	
	3 rd	Down-ward communication (how it takes place, symbol, merits and demerits) Parallel communication (how it takes place, symbol, merits	Presenting in group discussion, seminars and conferences: leadership quality
	4 th	and demerits)Professional communicationInformal communicationGrape vine communication(how it takes place, symbol,merits and demerits)	Leadership quality
Fifteenth	1 st	non- verbal communication 1. Meaning of nonverbal communication 2. Different areas of non- verbal communication	Time management
	2 nd	Kinesics or body language (postures and gestures, facial expression and eye Contact)	Time management
	3 rd	non- verbal communication Proxemics or spatial language (private space, personal space, social space, public Space)	Achieving the target
	4 th	non- verbal communication Language of signs and symbols(audio sign and visual sign in everyday life with merits And demerits)	Achieving the target

DISCIPLINE:	SEMESTER:	NAME OF THE TEACHING FACULTIES:
MATH AND SCIENCE	SECOND	DIPTI LAXMI BHUYAN
		GUNTUKU SUSMITA

SUBJECT: ENGG. CHEMISTRY	NO. OF. DAYS PER WEEK CLASS ALLOTED	SEMESTER FROM: 29/01/2024 TO 14/05/2024		
WEEK	CLASS DAY	THEORY PRACTICAL		
	1 st	-Introduction, Matter and its states.	Introduction to chemistry lab, about safety measures, about maintenance of practical records.	
	2 ND	-Atomic structure: fundamental particles (electron, proton and neutron), their properties.	Introduction to the students about use of different lab equipments and how to handle them safely.	
1 st	3 RD	 Atomic number and mass no., definition, examples and properties of isotopes, isotones and isobars. Definitions of atomic weight, mol. Weight, equivalent weight. 		

	4 [™]	-Rutherford's atomic model.	
		-Equivalent weight of acid,	
		bases and salts.	
		-concept of arrhenius theory	
		with examples.	
	1 st	-Bohr's atomic model	Dictation of the procedure of exp. 1, preparation and study of
		-Molarity and Normality with	properties of CO ₂ gas, explanation of theory with equations.
		numericals.	
		-Lowry Bronsted theory with	
		examples.	
	2 ND	Bohr and Bury Scheme and	Checking of rough practical record and demonstratation of
		AUFBAU'S Principle.	the experiment.
		-Molality with examples	
nd		LENAUS theory for Asid and Deep	
2 nd		-LEWIS theory for Acid and Base	
		with examples.	
	3 RD	-Hund's rule with examples. -Importance of ph in industry.	
		-Neutralization.	
	4 TH	-Electronic configuration.	
		-Ph of solutions with	
		numericals.	
		-Definition and types of salts.	

	1 ST	-Numericals	Expt. Conducted by the students.
3 rd	2 ND	-Correction of class note -clearing of doubts.	Correction of practical records, discussion of viva questions of the expt.
5	3 RD	-Numericals.	
	4 TH	-Chemical bonding, definition, cause of bonding	
		-Normal and Acidic salts with examples.	
	1 st	-Ionic bond: definition, examples.	Dictation of the procedure of exp. 2. Preparation and study of properties of ammonia gas. Explanation Of Theory With
		-Basic and Double salts with examples.	Equations.
	2 ND	-Covalent bond: definition with examples.	Checking of rough practical record and demonstratation of the experiment.
4 th		-Complex and Mixed salts with examples.	
	3 RD	-Coordinate bond: definition with examples. -Numericals.	
	4 [™]	-Electrochemistry: definition of electrolytes, their types, non electrolytes with examples.	
		-Numericals.	
	1 st	-Electrolysis(principle) -Numericals.	Expt. Conducted by the Students.

	2 ND	Electrolysis of molten NACL and	Checking of practical records and discussion of viva questions
۲th		Aqueous NACL.	of expt. 2.
5		-Numericals.	
	3 RD	-Faraday's laws of electrolysis.	
		-Numericals on faraday's laws.	
	4 TH	-Electroplating (zinc plating).	
	1 st	-Class note correction.	Dictation of the procedure of exp. 3. Crystalization of CuSO ₄ . Explanation Of Theory With Equations.
	2 ND	-Note checking and numericals.	Checking of rough practical record and demonstratation of the experiment.
	3 RD	-Corrosion and its types.	
		-Water treatment: sources of	
6 th		water, hard and soft water.	
U	4 TH	-Rusting of iron and water line	
		corrosion.	
		-Hardness, types of hardness.	
	1 ST	-Protection from corrosion by	Expt. Conducted by the Students.
	-	alloying and galvanisation.	
		-Removal of hardness by lime	
 +b		soda method.	
	2 ND	-Hydrocarbons:	Checking of practical records and discussion of viva questions
-		definitions, general formula,	of expt. 3.
		examples.	
		-Advantages of hot lime over	
		cold lime process.	

	3 RD	-Rules for iupac system of	
		nomenclature for alkanes,	
		alcohols, alkyl halides.	
		-Organic ion exchange method.	
	4 TH	-Rules for IUPAC system of	
		nomenclature for alkenes and	
		alkynes.	
		-Lubricants: definition and	
		types, uses.	
	1 ST	-Rules for writing the structural	Dictation of the procedure of exp. 4. Acid Base Titration.
		formula from IUPAC names,	Explanation Of Theory With Equations.
		bond line notation.	
		-Purpose of lubrication.	
	2 ND	-Revision.	Checking of rough practical record and demonstratation of
			the experiment.
oth	3 RD	-Aromatic hydrocarbons and	
0		Huckel's rule.	
		-Numericals.	
	4 TH	-Difference between aliphatic	
		and aromatic hydrocarbons,	
		uses of common aromatic	
		compounds.	
		-Fuel: definition, classification.	
	1 ^{s⊤}	-Metallurgy: minerals, ores with	Expt. Conducted by the Students Acidimetry.
o th		examples.	
		-Uses and composition of	
		diesel, petrol and kerosene.	

	2 ND	-Metallurgical operations. -Producer gas and water gas.	Expt. Conducted by the Students Alkalimetry.
	3 RD	-Gravity separation and Magnetic separation of ore concentration. -LPG, CNG and Coal gas.	
	4 TH	 -Froth floatation and Leaching methods of ore concentration. -Class note checking and discussion of questions . 	
	1 st	-Revision.	Checking of practical records and discussion of viva questions of expt. 4.
10 th	2 ND	-Numericals and class note correction.	Dictation of the procedure of exp. 5. Test of acid radicals.
	3 RD	-Polymers.	
	4 TH	-Definition of monomer, homo- polymer, co-polymer.	
	1 st	-Degree of polymerization.	Checking of rough practical record and demonstratation of the experiment.
11 th	2 ND	-Thermosetting, thermoplastic.	Expt. Conducted by the Students.
	3 RD	-Revision.	
	4 TH	-Composition and uses of polythene.	
12 th	1 st	-Calcination and roasting. -composition and uses of poly vinyl chloride.	Checking of practical records and discussion of viva questions of expt. 5.

	2 ND	-Smelting, flux, slag with	
		definitions and examples.	
		-composition and uses of Bakelite.	
		-Refining of metal.	
	3 RD	-Alloys and types with	
	4 [™]	examples.	
		-Elastomers.	
	1 ST	-Correction of assignments.	Dictation of the procedure of exp. 6. Test of basic radicals (known).
	2 ND	-Drawbacks of natural rubber.	Checking of rough practical record and demonstratation of the experiment.
13 th	3 RD	-Vulcanisation of rubber.	
	4 TH	-Advantages of vulcanised rubber over raw rubber.	
	1 ST	-Uses and examples of insecticides.	Expt. Conducted by the Students.
1 / th	2 ND	-Revision.	Test of unknown acid and basic radicals.
	3 RD	-Examples and uses of herbicides and fungicides.	
	4 [™]	-Revision.	
	1 ^{s⊤}	-Note correction.	Test of unknown salt.
	2 ND	-Bio fertilizers.	Checking of practical records and viva voice.
4 +b	3 RD	-Numericals and revision.	
15 ^m	4 TH	-Discussion of possible questions for semester exam.	

DISCIPLINE: MATH AND	SEMESTER: SECOND	NAME OF THE TEACHING FACULTIES:
SCIENCE		MANASWINEE PATNAIK
		GUNTUKU SUSMITA

SUBJECT: ENGG. PHYSICS	NO. OF CLASSES ALLOTED PER WEEK : 04	SEMESTER FROM 29/01/2024 TO 14/05/2024		
WEEK	CLASS DAY	THEORY	CLASS DAY	PRACTICAL
	1 ST	Physical quantities, fundamental and derived units, systems of units	- 1 ST	Introduction To Physics Lab
1ST	2^{ND}	dimension and Dimensional formulae of physical quantities.	1	
	3 RD Principle of homogeneity, Checking the dimensional correctness		2 ND	Identification Of Instruments In Physics Lab
	4 TH	Scalar and Vector, Vector Representation ,types of vectors. Triangle and Parallelogram law of vector Addition, Numerical.		
	1 ST	Resolution of Vectors –Numericals.		
2ND	2 ND	Vector multiplication (scalar product and vector product of vectors).	1 ST	Dictation & Demonstration Of Slide Calipers
	3 RD	Concept of Rest and Motion, Displacement, Speed, Velocity, Acceleration & FORCE	2 ND	Determine The Volume Of A Hollow Cylinder By Using A Slide Calipers & Checking The
	4 TH	Equations of Motion under Gravity (upward and downward motion)		Observation Note.

	1 ST	Circular motion: Angular displacement,		Determine The Volume Of A Solid Cylinder By	
		Angular velocity and Angular acceleration,	1^{ST}	Using A Slide Calipers & Checking The	
		Relation between –(i) Linear & Angular		Observation Note.	
3RD		velocity, (ii) Linear & Angular acceleration).			
	2 ND	Projectile, Expression for Equation of			
	_	Trajectory, Time of Flight,			
	3 RD	Maximum Height and Horizontal		Checking The Record & Viva Voce Of Exp-1 &	
		Range for a projectile fired at an angle,	2^{ND}	Exp-2.	
		Condition for maximum Horizontal Range.		Exp-2.	
	4^{TH}	Numericals, Class Note & Assignment			
	-	Checking			
	1 ST	Work- Formula & SI units.			
	-		1 ST	Dictation & Demonstration Of Screw Gauge.	
4тн —	2^{ND}	Friction – Concept. Types of friction (static,	1	Dictation & Demonstration of Serew Gauge.	
ЛТЦ	_	dynamic), Limiting Friction			
4111	3RD	Laws of Limiting Friction		Determine The Cross Sectional Area Of A Thin Wire By Using A Screw Gauge & Checking The Observation Note.	
			2^{ND}		
	4 TH	Coefficient of Friction, Numericals.Methods	2		
$4TH \qquad \begin{array}{c} 2^{ND} & dynamic), Limit \\ 3^{RD} & Laws of Limitin \\ 4^{TH} & Coefficient of F \\ to reduce frictio \\ 1^{ST} & Numericals, Class \\ 5TH & 2^{ND} & Newton's Laws \end{array}$	to reduce friction.				
	1 ST	Numericals, Class Note Checking	1 ST	Determine The Cross Sectional Area Of A Glass Piece By Using A Screw Gauge & Checking The Observation Note.	
5TH	2^{ND}	Newton's Laws of Gravitation, Universal			
		Gravitational Constant			
	3 RD	Acceleration due to gravity ,Concept of mass		Checking The Record & Viva Voce Of Exp-3 &	
		and weight.	2^{ND}	Exp-4.	
	4^{TH}	Relation between g and G.Variation of g		Exp-4.	
		with altitude and depth			
	4 GT	Kepler's Laws of Planetary Motion			
	1 ST				
	2^{ND}	Numericals, Class Note & Assignment	1^{ST}	Dictation & Demonstration Of Spherometer.	
		Checking			
6TH	3 RD	Oscillations, Simple Harmonic Motion		Determine The Convex Radius Of Curvature Of	
		(SHM)	2^{ND}	Watch Glass By Using A Spherometer &	
	4 TH	Expression for displacement, velocity,		Checking The Observation Note.	
	Т	acceleration of a particle in SHM.			

	1 ST	Wave motion, Transverse and Longitudinal wave	1 ST	Determine The Concave Radius Of Curvature Of Watch Glass By Using A Spherometer &
7TH	2 ND	wave parameters & their relations		Checking The Observation Note.
	3RD	Ultrasonics Properties & Applications.	2 ND	Checking The Record & Viva Voce Of Exp-5 & Exp-6.
	4 TH	NUMERICALS		
	1 ST	Heat and Temperature	1 ST	Dictation & Demonstration Of Simple Pendulum.
	2 ND	Specific Heat Capacity		
8TH	3RD	Change of state ,Latent Heat	2 ND	Determine The Value Of 'G' By Simple
	4 TH	Thermal Expansion	Z	Pendulum & Checking The Observation Note.
	1 ST	Coefficient of linear, superficial and cubical expansions of Solids & their Relation	1 ST	Checking The Record & Viva Voce Of Exp -7.
9TH	2 ND	Work and Heat, Joule's Mechanical Equivalent of Heat		
	3 RD	First Law of Thermodynamics		Dictation & Demonstration Of Prism.
	4 TH	NUMERICALS	2 ND	
	1 ST	Reflection & Refraction	1 ST	Determine The Angle Of The Prism.
10TH	2 ND	Refractive index, Refraction through Prism (Ray Diagram)		
	3 RD	Critical Angle and Total internal reflection	2 ND	Determine The Angle Of Minimum Deviation By
	4 TH	Fiber Optics & Numericals	-	I~D Curve Method.
	1 ST	Electrostatics, Coulombs laws	1 ST	Chaptring The Observation Note
	2 ND	Unit charge, Absolute & Relative Permittivity	151	Checking The Observation Note.
11TH	3 RD	Electric potential and Potential difference Electric field & field intensity	2^{ND}	Checking The Record & Viva Voce Of Exp -8.
	4 TH	Capacitance ,Series and Parallel combination of Capacitors		

	1 ST	Magnet, Properties of a magnet. Coulomb's Laws in Magnetism, Unit Pole	1^{ST}	Dictation & Demonstration Of Bar Magnet-1.	
12TH	2 ND	Magnetic field & Field intensity, Magnetic lines of force			
	3 RD	Magnetic & Flux Density (B)		Trace The Lines Of Force Due To A Bar Magnet	
	4 TH	Electric Current, Ohm's law and its applications.	2^{ND}	With North Pole Pointing North And Locate The Neutral Points.	
	1 ST	Series and Parallel combination of resistors	1 ST	Checking Bar Magnet-1.	
13TH	2 ND	Kirchhoff's laws			
20111	3 RD	Wheatstone's Bridge	2 ND		
	4 TH	Numericals	210	Checking The Record & Viva Voce Of Exp -9.	
	1 ST	Classnote & Assignment Checking		Dictation & Demonstration Of Bar Magnet-2.	
	2 ND	Electromagnetism ,Force acting on a current carrying conductor placed in a uniform magnetic field,	1 ST		
14TH	3 RD	Fleming's Left Hand Rule		Trace The Lines Of Force Due To A Bar Magnet With North Pole Pointing South And Locate The Neutral Points.	
	4 TH	Faraday's Laws of Electromagnetic Induction, Lenz's Law (Statement) Fleming's Right Hand Rule	2 ND		
	1 ST	LASER -Properties & Applications	1 ST	Checking Bar Magnet-2.	
	2 ND	Principle of LASER			
15TH	3 RD	Wireless Transmission – Ground Waves, Sky Waves, Space Waves	2 ND	Checking The Record & Viva Voce Of Exp -10.	
	4 TH	Numericals & Assignment Checking			

DISCIPLINE: MATH AND SCIENCE	SEMESTER: SECOND	NAME OF THE TEACHING FACULTIES: Shishir Kumar Naik Sankar Kumar Pradhan
00121102		Murti Yashobant Kumar

SUBJECT: ENGG. MATHEMATICS-II	NO. OF. DAYS PER WEEK CLASS ALLOTED	Semester: 29/01/2024 to 14/05/2024	
WEEK	CLASS DAY	THEORY	
	1 ST	Introduction of Relation	
	2 ND	Definition of Functions based on set theory	
1 ST	3 RD	Types of Functions, (i) Constant Function (ii) Identity Function (iii) Absolute Function (iv) Greatest Integer Function	
-	4 TH	(v) Trigonometric Function (vi) Exponential Function (vii) Logarithmic Function.	
	5 [™]	Introduction of Limit.	
	6 TH	Problems based on the above.	
	1 ST	Existence of Limit	
	2 ND	Methods of evaluation of Limit (i) $\lim_{x \to 0} \frac{x^n - a^n}{x - a} = na^{n-1}$ (ii) $\lim_{x \to 0} \frac{a^{n-1}}{x} = \log_e a$ (iii) $\lim_{x \to 0} \frac{e^x - 1}{x} = 1$	
2 ND	3 RD	(iv) $\lim_{x \to 0} (1 + x)^{\frac{1}{x}} = e$ (v) $\lim_{x \to 0} \left(1 + \frac{1}{x} \right)^{x} = e$ (vi) $\lim_{x \to 0} \frac{\log(1 + x)}{x} = 1$	
	4 TH	$ \begin{array}{l} \left(\text{vii}\right) \lim_{x \to 0} \frac{\sin x}{x} = 1 \\ \left(\text{vii}\right) \lim_{x \to 0} \frac{\tan x}{x} = 1 \end{array} $	
	5 TH	Definition of Continuity of a Function at a point and problems based on it.	
	6 TH	Copy checking and doubt clear class.	
c RD	1 ST	Derivative of a function at a point.	

	2 ND	Algebra of derivatives.
	3 RD	Derivative of Standard Functions.
	4 TH	Problems based on derivative using formula.
	5 TH	Problems based on derivative using formula.
	6 TH	Doubt clear class.
	1 ST	Derivative of Composite functions (chain rule).
	2 ND	Problems based on Composite functions.
	3 RD	Derivative of Inverse Trigonometric functions.
4 TH	4 TH	Problems based on Inverse Trigonometric functions.
	5 TH	Differentiation by Trigonometrical Transformations
	6 ^{тн}	Doubt clear class.
	1 ST	Methods of Differentiation: (i) Parametric functions
	2 ND	(ii) Implicit functions
5 TH	3 RD	Problems based on Parametric and Implicit
5		functions.
	4 TH	(iii) Logarithmic functions
	5 TH	Problems based on Logarithmic functions
	6 TH	Copy checking and Doubt clearing class.
	1 ST	Derivative of a function with respect to another function.
CTH	2 ND	Application of Derivative: (i) Successive differentiation (upto second order)
6''	3 RD	Problems based on Successive derivatives.
	4 TH	(ii) Partial differentiation (Function of two variables upto second order)
	5 TH	Problems based on Partial differentiation.
	6 TH	Copy checking and Doubt clearing class.
	1 st	Definition of integration as inverse of differentiation
	2 ND	Integral of standard functions
7 TH	3 RD	Methods of integration: (i)Integration by substitution
_	4 TH	Problems based on substitution method
	5 TH	(ii) Integration by Parts
	6 TH	Problems based on Integration by Parts

		c dx c dx	
	1 ST	Integration of the form (i) $\int \frac{dx}{x^2+a^2}$ (ii) $\int \frac{dx}{x^2-a^2}$	
		(iii) $\int \frac{dx}{a^2 - x^2}$	
	2 ND	Integration of the form (iv) $\int \frac{dx}{\sqrt{x^2-a^2}}$	
		(v) $\int \frac{dx}{\sqrt{a^2 - x^2}}$ (vi) $\int \frac{dx}{\sqrt{x^2 + a^2}}$	
8 TH	3 RD	Integration of the form (iv) $\int \frac{dx}{x\sqrt{x^2-a^2}}$	
		$(v)\int \sqrt{a^2 - x^2} dx$	
		(vi) $\int \sqrt{a^2 + x^2} dx$ (vii) $\int \sqrt{x^2 - a^2} dx$	
	4 TH	Problems based on above.	
	5 TH	Definite Integral	
	6 [™]	Properties of definite integral	
	1 ST	Properties of definite integrals	
	2 ND	Problems based on Properties of definite integrals	
	3 RD	Application of integration:	
	5	(i) Area enclosed by a curve and X- axis.	
9 TH	4 TH	Area of circle with center at origin.	
	5 TH	Question and answer based on area.	
	6 TH	Class test.	
	1 ST	Order and Degree of differential equation.	
	2 ND	Solution of differential equation of 1 st order	
	2	and 1 st degree equation by method of	
		separation of variables.	
	3 RD	Question and answer based on this.	
	4 TH	Liner equation of the form	
10"		$\frac{dy}{dx} + py = Q$ where P and Q are the function	
	5 TH	of x. Liner equation of the form	
	5		
		$\frac{dx}{dy}$ + px =Q , where P and Q are the function of	
	6 TH	y. Doubt clear and copy checking.	
	1 ST	Previous year questions based on differential	
		equation.	
	2 ND	Vector algebra: Introduction	
11 TH	3 RD	Types of vectors	
	4 TH	Representation of vector	
	4 TH 5 TH	Representation of vectorMagnitude and direction of vectors.	

12 TH	1 ST	Addition and subtraction of vectors.
	2 ND	Position vector
	3 RD	Condition of co-linearity
	3 4 ^{тн}	Scalar product of two vectors. (Dot product)
	5 TH	Geometrical meaning of dot product.
	6 TH	Problems based on this.
13 TH	1 ST	Angle between two vectors.
	2 ND	Scalar and vector projection of two vectors.
	3 RD	Vector product (cross product).
	4 TH	Geometrical meaning of vectors product.
	5 TH	Area of triangle and parallelogram.
	6 TH	Problem based on this.
14 TH	1 ST	Revision on vector Algebra
	2 ND	Revision on vector Algebra
	3 RD	Revision on Limit and continuity
	4 TH	Revision on Limit and continuity
	5 TH	Revision on Derivatives
	6 TH	Revision on Derivatives
15 TH	1 ST	Revision on Derivative
	2 ND	Revision on Integration
	3 RD	Revision on Integration
	4 TH	Revision on Integration
	5 TH	Revision on Differential Equation
	6 TH	Revision on Differential Equation