

LESSON PLAN OF APPLIED PHYSICS-1

SESSION 2025-2026

DISCIPLINE : All Branches	SEMESTER : 1st	NAME OF THE TEACHING FACULTY : BIKASH KUMAR NAIK
SUBJECT : APPLIED PHYSICS-1	NO. OF DAYS/PER WEEK CLASS ALLOTTED: 04	SEMESTER FROM DATE : 20/07/2025 TO DATE: 4.12/2025
WEEK :	CLASS DAY :	NO. OF WEEKS : 15
		THEORY TOPIC :
1ST	1 ST	UNIT - I: (Physical world, Units and Measurements) Physical quantities
	2 ND	fundamental and derived, Units and systems of units
	3 RD	Exercises
	4 TH	unit and dimension
2ND	1 ST	Dimensions and dimensional formulae of physical quantities
	2 nd	Principle of homogeneity
	3 rd	dimensions
	4 th	Exercises
3RD	1 st	Limitations of dimensional analysis ,Measurements: Need, measuring instruments, least count
	2 nd	types of measurement (direct, Indirect)
	3 rd	Exercises
	4 th	absolute error, relative error, error propagation, error estimation
4TH	1 st	significant figures
	2 nd	Unit 2: Force and Motion ,Scalar and Vector quantities – examples, representation of vector, types of vectors.
	3 rd	types of vectors.
	4 th	Addition and Subtraction of Vectors, Triangle and Parallelogram law (Statement only)
5TH	1 ST	Exercises
	2 ND	Force, Momentum, Statement and derivation of conservation of linear momentum
	3 RD	applications such as recoil of gun, rockets, Impulse and its applications.
	4 TH	acceleration, frequency, time period, Relation between linear and angular velocity
6TH	1 ST	acceleration and angular acceleration (related numerical), Centripetal and Centrifugal
	2 nd	forces with live examples, Expression and applications such as banking of roads and
	3 rd	bending of cyclist.
	4 th	unit-3 :work, power and energy , Energy and its units, kinetic energy, gravitational potential energy with examples and derivations,
7TH	1 st	mechanical energy, conservation of mechanical energy for freely falling

	2 nd	Power and its units, power and work relationship, calculation of power (numerical problems).
	3 rd	Unit 4: Rotational Motion Translational
	4 th	Definition of torque and angular momentum and their examples
8TH	1 st	Conservation of angular momentum (quantitative) and its applications.
	2 nd	Moment of inertia and its physical significance
	3 rd	radius of gyration for rigid body
	4 th	Theorems of parallel and perpendicular axes (statements only)
9TH	1 ST	Moment of inertia of rod, disc
	2 ND	ring and sphere (hollow and solid); (Formulae only)
	3 RD	Exercises
	4 TH	Unit 5: Properties of Matter Elasticity
10TH	1 ST	Hooke's law
	2 nd	stress and strain,
	3 rd	Significance of stress strain curve
	4 th	Pressure: definition, units, atmospheric pressure, gauge pressure, absolute pressure
11TH	1 st	Fortin's Barometer and its applications
	2 nd	Exercises
	3 rd	Surface tension: concept, units,
	4 th	angle of contact
12TH	1 st	Ascent Formula (No derivation)
	2 nd	effect of temperature and impurity on surface tension
	3 rd	Viscosity and coefficient of viscosity
	4 th	Terminal velocity,
13TH	1 ST	Stoke's law and effect of temperature on viscosity application in hydraulic systems.
	2 ND	Hydrodynamics: Fluid motion stream line and turbulent flow
	3 RD	Reynold's number Equation of continuity,
	4 TH	unit -6: HEAT AND THERMOMETRY, Concept of Temperature
14TH	1ST	Bernoulli's Theorem (only formula and numericals) and its applications.
	2nd	modes of heat transfer (conduction, convection and radiation with examples)
	3rd	specific heat
	4th	scales of temperature and their relationship,
15TH	1st	Types of Thermometer (Mercury thermometer, Bimetallic thermometer, Platinum resistance thermometer, Pyrometer)
	2nd	their uses
	3rd	Expansion of solids, liquids and gases, coefficient of linear
	4th	Exercises

Signature of Faculty
 01.08.2025

Principal
 Govt. polytechnic, Kalahandi

GOVT. POLYTECHNIC KALAHANDI		
DEPARTMENT OF HUMANITIES & SCIENCES		
LESSON PLAN (ACADEMIC SESSION 25-26)		
Discipline: Physics	Semester: 1st	Name of the teaching faculty: Bikash Kumar Naik
Subject: Applied Physics Lab I	No of Days/Week class allotted: 1	Semester from Date: 06/8/2025 to 04/12/2025 No of weeks: 17
Week	Class Day	Practical Topics
1st	1st	Introduction to Physics lab, Brief discussion of lab equipment, Lab Rubrics, Probable errors while performing experiment.
2nd	2nd	Measurement of length, radius of a given cylinder, a test tube and a beaker using a Vernier Caliper and find volume of each object. (Demo & Practice)
3rd	3rd	Measurement of length, radius of a given cylinder, a test tube and a beaker using a Vernier Caliper and find volume of each object. (Assessment)
4th	4th	Determination of diameter of a wire, a solid ball and thickness of cardboard using a screw gauge. (Demo & Practice)
5th	5th	Determination of diameter of a wire, a solid ball and thickness of cardboard using a screw gauge. (Assessment)
6th	6th	Determination of radius of curvature of a convex and a concave mirror or surface using a spherometer. (Demo & Practice)
7th	7th	Determination of radius of curvature of a convex and a concave mirror or surface using a spherometer. (Assessment)
8th	8th	Verification of triangle and parallelogram law of forces. (Demo & Practice)
9th	9th	Verification of triangle and parallelogram law of forces. (Assessment)
10th	10th	Determination of the coefficient of friction between wood and glass using a horizontal board. (Demo & practice)
11th	11th	Determination of the coefficient of friction between wood and glass using a horizontal board. (Assessment)
12th	12th	Determination of force constant of a spring using Hook's law. (Demo & Practice)
13th	13th	Determination of force constant of a spring using Hook's law. (Assessment)
14th	14th	Determination of moment of Inertia of a flywheel. (Demo, Practice & Assessment)
15th	15th	Measurement of the room temperature and temperature of a hotbath using mercury thermometer and convert it into different scales. (Demo, Practice & Assessment)
16th	16th	Remedial Lab Class
17th	17th	Remedial Lab Class

Bikash Kumar Naik
Signature of the Teaching Faculty
6.8.25

Jaladmi
08/08/25
Signature of HOD, Humanities & Sciences

Lesson Plan of Engg. Mechanics (TH-4B) (60 Periods)

Semester & Branch : 1st Sem. Electrical Engg.

Session : 2025-Winter

Name of the Teaching Faculty: Ashis Kashyap

Semester from Date: 08.08.2025

To Date: 4.12.2025

No. of Weeks: 17

No. of Days per Week: 4

Chapters	Periods	Week	Class Day	Topics to be covered
Chapter-1 (BASICS OF MECHANICS & FORCE SYSTEM) (12 Periods)	1	1st	1	●1.1 Significance and relevance of Mechanics,
	2		2	●1.1 Applied mechanics, Statics, Dynamics.
	3		3	●1.2 Space, time, mass, particle,
	4		4	●1.2 flexible body and rigid body.
	5	2nd	1	●1.3 Scalar and vector quantity, Units of measurement (SI units)
	6		2	●1.3 Fundamental units and derived units.
	7		3	●1.4 Force – unit, representation as a vector and by Bow's notation, characteristics and effects of a force,
	8		4	●1.4 Principle of transmissibility of force, Force system and its classification.
	9	3rd	1	●1.5 Resolution of a force - Orthogonal components of a force,
	10		2	●1.5 moment of a force, Varignon's Theorem
	11		3	●1.6 Composition of forces – Resultant, analytical method for determination of resultant for concurrent, non-concurrent and parallel co-planar force systems
	12		4	●1.6 Law of triangle, parallelogram and polygon of forces.
Chapter-2 (EQUILIBRIUM) (12 Periods)	13	4th	1	●2.1 Equilibrium and Equilibrant, Free body and Free body diagram
	14		2	●2.1 Equilibrium and Equilibrant, Free body and Free body diagram
	15		3	●2.1 Equilibrium and Equilibrant, Free body and Free body diagram
	16		4	●2.2 Analytical and graphical methods of analysing equilibrium
	17	5th	1	●2.2 Analytical and graphical methods of analysing equilibrium
	18		2	●2.3 Types of beam, supports (simple, hinged, roller and fixed)
	19		3	●2.3 Types of beam, supports (simple, hinged, roller and fixed)

Ashis Kashyap.

(12 PERIODS)

20		4	●2.4 Beam reaction for cantilever, simply supported beam with or without overhang
21	6th	1	●2.4 Beam reaction for cantilever, simply supported beam with or without overhang
22		2	●2.4 Beam reaction for cantilever, simply supported beam with or without overhang
23		3	●2.5 Beam reaction graphically for simply supported beam subjected to vertical point loads only
24		4	●2.5 Beam reaction graphically for simply supported beam subjected to vertical point loads only
25	7th	1	●3.1 Friction and its relevance in engineering, types and laws of friction,
26		2	●3.1 Friction and its relevance in engineering, types and laws of friction,
27		3	●3.1 limiting equilibrium, limiting friction,
28		4	●3.1 limiting equilibrium, limiting friction,
29	8th	1	●3.1 co-efficient of friction, angle of friction,
30		2	●3.1 co-efficient of friction, angle of friction,
31		3	●3.1 angle of repose, relation between co-efficient of friction and angle of friction.
32		4	●3.1 angle of repose, relation between co-efficient of friction and angle of friction.
33	9th	1	●3.2 Equilibrium of bodies on level surface subjected to force parallel and inclined to plane.
34		2	●3.2 Equilibrium of bodies on level surface subjected to force parallel and inclined to plane.
35		3	●3.3 Equilibrium of bodies on inclined plane subjected to force parallel to the plane only.
36		4	●3.3 Equilibrium of bodies on inclined plane subjected to force parallel to the plane only.
37	10th	1	●4.1 Centroid of geometrical plane figures (square, rectangle, triangle, circle, semi-circle, quarter circle)
38		2	●4.1 Centroid of geometrical plane figures (square, rectangle, triangle, circle, semi-circle, quarter circle)
39		3	●4.1 Centroid of geometrical plane figures (square, rectangle, triangle, circle, semi-circle, quarter circle)
40		4	●4.2 Centroid of composite figures composed of not more than three geometrical figures
41	11th	1	●4.2 Centroid of composite figures composed of not more than three geometrical figures

Chapter-3
(FRICTION)
(12 Periods)Chapter-4
(CENTROID &*Arshvi Kashyap*

CENTRE OF GRAVITY) (12 Periods)	42		2	●4.2 Centroid of composite figures composed of not more than three geometrical figures
	43		3	●4.2 Centroid of composite figures composed of not more than three geometrical figures
	44		4	●4.3 Centre of Gravity of simple solids (Cube, cuboid, cone, cylinder, sphere, hemisphere)
	45	12th	1	●4.3 Centre of Gravity of simple solids (Cube, cuboid, cone, cylinder, sphere, hemisphere)
	46		2	●4.3 Centre of Gravity of simple solids (Cube, cuboid, cone, cylinder, sphere, hemisphere)
	47		3	●4.3 Centre of Gravity of composite solids composed of not more than two simple solids.
	48		4	●4.3 Centre of Gravity of composite solids composed of not more than two simple solids.
	Chapter-5 (SIMPLE LIFTING MACHINES) (12 Periods)	49	13th	1
50			2	●5.1 mechanical advantage, applications and advantages.
51			3	●5.1 Velocity ratio, efficiency of machines, law of machine.
52			4	●5.1 Velocity ratio, efficiency of machines, law of machine.
53		14th	1	●5.2 Ideal machine, friction in machine,
54			2	●5.2 maximum Mechanical advantage and efficiency,
55			3	●5.2 reversible and non-reversible machines, conditions for reversibility
56			4	●5.2 reversible and non-reversible machines, conditions for reversibility
57		15th	1	●5.3 Velocity ratios of Simple axle and wheel, Differential axle and wheel, Worm and worm wheel,
58			2	●5.3 Single purchase and double purchase crab winch,
59			3	●5.3 Simple screw jack, Weston's differential pulley block, geared pulley block.
60			4	●5.3 Simple screw jack, Weston's differential pulley block, geared pulley block.

Revision & Previous Year Question Paper Practice	61	16th	1	Chapter-1 Revision (BASICS OF MECHANICS & FORCE SYSTEM) Previous Year Question Paper Practice
	62		2	
	63		3	Chapter-2 Revision (EQUILIBRIUM) Previous Year Question Paper Practice
	64		4	
	65	17th	1	Chapter-3 Revision (FRICTION) Previous Year Question Paper Practice
	66		2	
	67		3	Chapter-4 Revision (CENTROID & CENTRE OF GRAVITY) Previous Year Question Paper Practice
	68		4	
				Chapter-5 Revision (SIMPLE LIFTING MACHINES) Previous Year Question Paper Practice

Ashik Kashyap.
Sign. of the Faculty

P. Ashwin
08/08/2025
H.O.D I/c
Hum. & Sc.

LESSON PLAN

GOVERNMENT POLYTECHNIC, KALAHANDI, BIIAWANIPATNA

FACULTY NAME: BHUBANTA KAND BRANCH: CIVIL SEM: 1ST SESSION: 2025-26(W)

SUB: FEEE	No. of days/ week Class allotted: 4 Total Periods: 60	w.e.f.11.08.2025 to 04.12.2025
Week	Class Day	Theory
1 st	1 st	UNIT: I - Overview of Electronic Components & Signals: Passive Active Components: Resistances, Capacitors, Inductors
	2 nd	Diodes, Transistors, FET
	3 rd	MOS and CMOS and their Applications.
	4 TH	Concept and simple problems of Resistance, Capacitor & Inductor
2 nd	1 st	Definition, classification and Working of diode (PN junction, LED, Zener), transistor, FET
	2 nd	-DO-
	3 rd	-DO-
	4 TH	Concept of MOS and CMOS
3 rd	1 st	Signals: DC/AC, voltage/current, periodic/non-periodic signals
	2 nd	Average, rms, peak values, different types of signal waveforms
	3 rd	Ideal/non-ideal voltage/current sources, independent/dependent voltage current sources. (Definitions)
	4 TH	Problem Solving Class
4 th	1 st	UNIT: II - Overview of Analog Circuits: Operational Amplifiers-Ideal Op-Amp, Practical op amp,
	2 nd	Open loop and closed loop configurations
	3 rd	Application of Op-Amp as amplifier
	4 TH	Adder
5 th	1 st	-DO-
	2 nd	Differentiator and integrator
	3 rd	-DO-
	4 TH	UNIT : III- Overview of Digital Electronics: Introduction to Boolean Algebra
6 th	1 st	Electronic Implementation of Boolean Operations
	2 nd	-DO-
	3 rd	Gates-Functional Block Approach (Simple problems of Number system)
	4 TH	-DO-
7 th	1 st	Storage elements-Flip Flops-A Functional block approach, Counters: Ripple, Up/down and decade
	2 nd	-DO-
	3 rd	Introduction to digital IC Gates (of TTL Type)
	4 TH	-DO-
8 th	1 st	Unit : IV- Electric and Magnetic Circuits: EMF, Current, Potential Difference, Power and Energy;
	2 nd	M.M.F, magnetic force, permeability, hysteresis loop
	3 rd	reluctance, leakage factor and BH curve
	4 TH	Electromagnetic induction, Faraday's laws of electromagnetic induction
9 th	1 st	Lenz's law; Dynamically induced emf; Statically induced emf

10 th	2 nd	Equations of self and mutual inductance; Analogy between electric and magnetic circuits.
	3 rd	-DO-
	4 TH	-DO-
	1 st	Unit: V- A.C. Circuits: Cycle, Frequency, Periodic time
11 th	2 nd	Amplitude, Angular velocity, RMS value, Average value
	3 rd	Form Factor Peak Factor, impedance, phase angle, and power factor
	4 TH	Mathematical and phasor representation of alternating emf and current
	1 st	-DO-
12 th	2 nd	Voltage and Current relationship in Star and Delta connections
	3 rd	A.C in resistors, inductors and capacitors
	4 TH	A.C in R-L series
	1 st	A.C in R-C series, R-L-C series
13 th	2 nd	A.C in parallel circuits
	3 rd	Power in A. C. Circuits, power triangle.
	4 TH	Problem Solving Class
	1 st	Unit: VI- (Revised) Transformer and Machines: General construction and principle of different type of transformers
14 th	2 nd	-DO-
	3 rd	-DO-
	4 TH	Emf equation and transformation ratio of transformers
	1 st	Auto transformers
15 th	2 nd	-DO-
	3 rd	Construction and Working principle of DC motors
	4 TH	-DO-
	1 st	Basic equations and characteristic of motors.
15 th	2 nd	-DO-
	3 rd	Problem Solving Class
	4 TH	Doubt Clearing Class

SIGN. FACULTY

HOD(MATH&SCI.)

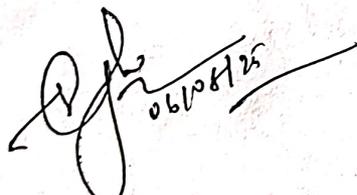
LESSON PLAN

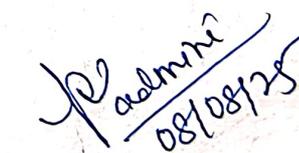
GOVT. POLYTECHNIC KALAHANDI, BHAWANIPATNA

FACULTY NAME: SATYAPRAKASH OJHA BRANCH: MECHANICAL SEM: 1st SESSION: 2025-26(W)

SUB: FEEE	No. of days/ week Class allotted: 4 Total Periods: 60	w.e.f. 06.08.2025 to 04.12.2025
Week	Class Day	Theory
1 st	1 st	UNIT I Overview of Electronic Components & Signals: Passive Active Components: Resistances, Capacitors, Inductors
	2 nd	Diodes, Transistors
	3 rd	FET, MOS and CMOS and their Applications
	4 th	-DO-
2 nd	1 st	(Concept and simple problems of Resistance, Capacitor & Inductor)
	2 nd	Definition, classification and Working of diode(PN junction, LED, Zener),
	3 rd	Transistor, FET, Concept of MOS and CMOS)
	4 th	-DO-
3 rd	1 st	Signals: DC/AC, voltage/current, periodic/non-periodic signals
	2 nd	average, rms, peak values, different types of signal waveforms
	3 rd	Ideal/non-ideal voltage/current sources, independent/dependent voltage current sources. (Definitions)
	4 th	UNIT II Overview of Analog Circuits: Operational Amplifiers-Ideal Op-Amp
4 th	1 st	Practical op amp, Open loop and closed loop configurations
	2 nd	-DO-
	3 rd	Application of Op-Amp as amplifier
	4 th	Adder
5 th	1 st	Differentiator and integrator
	2 nd	-DO-
	3 rd	UNIT III Overview of Digital Electronics: Introduction to Boolean Algebra
	4 th	Electronic Implementation of Boolean Operations
6 th	1 st	Gates-Functional Block Approach (Simple problems of Number system)
	2 nd	-DO-
	3 rd	Storage elements-Flip Flops-A Functional block approach
	4 th	-DO-
7 th	1 st	Counters: Ripple,
	2 nd	Up/down and decade
	3 rd	-DO-
	4 th	Introduction to digital IC Gates (of TTL Type)
8 th	1 st	-DO-
	2 nd	Unit IV Electric and Magnetic Circuits: EMF, Current, Potential Difference, Power and Energy;
	3 rd	M.M.F, magnetic force, permeability, hysteresis loop,
	4 th	reluctance, leakage factor and BH curve

9 th	1 st	Electromagnetic induction, Faraday's laws of electromagnetic induction,
	2 nd	Lenz's law; Dynamically induced emf; Statically induced emf;
	3 rd	Equations of self and mutual inductance; Analogy between electric and magnetic circuits.
	4 th	Unit V A.C. Circuits: Cycle, Frequency, Periodic time
10 th	1 st	Amplitude, Angular velocity, RMS value, Average value,
	2 nd	Form Factor Peak Factor
	3 rd	impedance, phase angle, and power factor;
	4 th	Mathematical and phasor representation of alternating emf and current;
11 th	1 st	Voltage and Current relationship in Star and Delta connections; A.C in resistors, inductors and capacitors;
	2 nd	-do-
	3 rd	-do-
	4 th	A.C in R-L series, R-C series, R-L-C series and parallel circuits;
12 th	1 st	-do-
	2 nd	-do-
	3 rd	Power in A. C. Circuits, power triangle
	4 th	-do-
13 th	1 st	Unit VI (Revised) Transformer and Machines: General construction and principle of different type of transformers
	2 nd	-do-
	3 rd	Emf equation and transformation ratio of transformers;
	4 th	-do-
14 th	1 st	Auto transformers
	2 nd	-do-
	3 rd	Construction and Working principle of DC motors;
	4 th	-do-
15 th	1 st	Basic equations and characteristic of motors.
	2 nd	-do-
	3 rd	Doubt clearing class
	4 th	Practice session

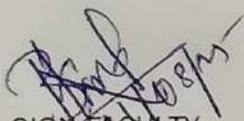

06/08/25
Sign of Faculty

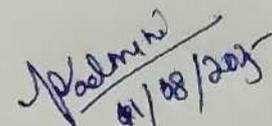

08/08/25
HOD (Maths & Sci Dept)

LESSON PLAN
GOVERNMENT POLYTECHNIC, KALAHANDI, BHAWANIPATNA

FACULTY NAME: BHUBANTA KAND BRANCH: CIVIL SEM: 1ST SESSION: 2025-26(W)

SUB: FEEE LAB	No. of days/ week Class allotted: 2 Total Periods:30	w.e.f.11.08.2025 to 04.12.2025
Week	Class Day(No of periods)	Theory
1 st	1 st (2p)	Determine the permeability of magnetic material by plotting its B-H curve.
2 nd	1 st (2p)	Measure voltage, current and power in 1-phase circuit with resistive load.
3 rd	1 st (2p)	Measure voltage, current and power in R-L series circuit.
4 th	1 st (2p)	Determine the transformation ratio(K) of 1-phase transformer.
5 th	1 st (2p)	Connect single phase transformer and measure input and output quantities.
6 th	1 st (2p)	Make Star and Delta connection in starter to run induction motor.
7 th	1 st (2p)	Identify various passive and active electronics components.
8 th	1 st (2p)	Connect resistors in series and parallel combination and measure its value using digital multimeter.
9 th	1 st (2p)	Connect capacitors in series and parallel combination and measure its value using multimeter.
10 th	1 st (2p)	Use multimeter to measure the value of given resistor and determine the value to confirm with colour code.
11 th	1 st (2p)	Test the PN-junction diode and LED using digital multimeter.
12 th	1 st (2p)	Test the performance of PN-junction diode.
13 th	1 st (2p)	Test the performance of Zener diode.
14 th	1 st (2p)	Identify three terminals of a transistor using digital multimeter.
15 th	1 st (2p)	Test the performance of NPN transistor.


SIGN: FACULTY


HOD(MATH&SCI.)

LESSON PLAN

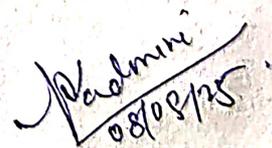
GOVT. POLYTECHNIC KALAHANDI, BHAWANIPATNA

FACULTY NAME: SATYAPRAKASH OJHA BRANCH: MECHANICAL SEM: 1st SESSION: 2025-26(W)

SUB: FEEE LAB	No. of days/ week Class allotted: 2 Total Periods: 30	w.e.f. 06.08.2025 to 04.12.2025
Week	Class Day	Theory
1 st	1 st	Determine the permeability of magnetic material by plotting its B-H curve
	2 nd	
2 nd	1 st	Measure voltage, current and power in 1-phase circuit with resistive load
	2 nd	
3 rd	1 st	Measure voltage, current and power in R-L series circuit
	2 nd	
4 th	1 st	Determine the transformation ratio(K) of 1-phase transformer
	2 nd	
5 th	1 st	Connect single phase transformer and measure input and output quantities
	2 nd	
6 th	1 st	Make Star and Delta connection in starter to run induction motor
	2 nd	
7 th	1 st	Identify various passive and active electronics components
	2 nd	
8 th	1 st	Connect resistors in series and parallel combination and measure its value using digital multimeter
	2 nd	
9 th	1 st	Connect capacitors in series and parallel combination and measure its value using multimeter
	2 nd	
10 th	1 st	Use multimeter to measure the value of given resistor and determine the value to confirm with colour code
	2 nd	
11 th	1 st	Test the PN-junction diode and LED using digital multimeter
	2 nd	
12 th	1 st	Test the performance of PN-junction diode
	2 nd	
13 th	1 st	Test the performance of Zener diode
	2 nd	
14 th	1 st	Identify three terminals of a transistor using digital multimeter
	2 nd	
15 th	1 st	Test the performance of NPN transistor
	2 nd	



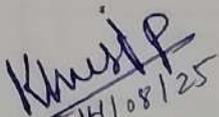
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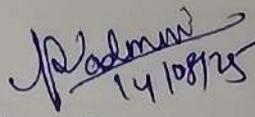


HOD(Math & sci)

DISCIPLINE: CSE <i>Electrical</i>	SEMESTER: 1st	NAME OF THE TEACHING FACULTY: KHUSI PARIMITA
SUBJECT: Introduction to IT Systems	NO. OF DAYS/PER WEEK CLASS ALLOTTED: 3	SEMESTER FROM DATE: 14/08/2025 TO DATE: 04/09/2025 NO. OF WEEKS: 15
WEEK	CLASS DAY	THEORY/PRACTICAL TOPICS
1 st	1 st	UNIT 1:- Basic Internet skills: Understanding browser
	2 nd	Understanding browser
	3 rd	Understanding browser
2 nd	1 st	efficient use of search engines
	2 nd	efficient use of search engines
	3 rd	efficient use of search engines
3 rd	1 st	awareness about Digital India portals
	2 nd	(state and national portals)
	3 rd	(state and national portals)
4 th	1 st	And college portals.
	2 nd	and college portals
	3 rd	and college portals
5 th	1 st	General understanding of various computer hardware components – CPU
	2 nd	General understanding of various computer hardware components – CPU
	3 rd	General understanding of various computer hardware components – CPU
6 th	1 st	Memory,
	2 nd	Display, Key- board, Mouse,
	3 rd	HDD
7 th	1 st	and other Peripheral Devices
	2 nd	and other Peripheral Devices
	3 rd	and other Peripheral Devices
8 th	1 st	UNIT -2:- OS Installation (Linux and MS Windows)
	2 nd	OS Installation (Linux and MS Windows)
	3 rd	OS Installation (Linux and MS Windows)
9 th	1 st	Unix Shell and Commands, vi editor.
	2 nd	Unix Shell and Commands, vi editor.
	3 rd	Unix Shell and Commands, vi editor.
10 th	1 st	UNIT-3:-
	2 nd	HTML4
	3 rd	CSS

11 th	1 st	Making basic personal webpage.
	2 nd	Making basic personal webpage.
	3 rd	Making basic personal webpage.
12 th	1 st	UNIT 4:-Office Tools: Open Office Writer, Open Office
	2 nd	Open Office Writer
	3 rd	Open Office
13 th	1 st	Spreadsheet (Calc),
	2 nd	Spreadsheet (Calc),
	3 rd	Open Office Impress.
14 th	1 st	UNIT 5:-Information security best practices.
	2 nd	Information security best practices
	3 rd	Information security best practices
15 th	1 st	Information security best practices
	2 nd	Information security best practices
	3 rd	Information security best practices


 14/08/25
 Signature Of Faculty


 14/08/25
 H.O. (Humanities & S.C.)

DISCIPLINE: Electrical	SEMESTER: 1st	NAME OF THE TEACHING FACULTY: KHUSI PARIMITA
SUBJECT: Introduction to IT systems lab	NO.OF CLASSES PER WEEK : 4	SEMESTER FROM DATE: 14/08/2025 TO DATE: 04/12/2025 NO.OFWEEKS: 15 , Total Class allotted- 60
WEEK	CLASS DAY	PRACTICAL TOPICS
1st	1st	Browser features, browsing, using various search engines, writing search queries
	2nd	Browser features, browsing, using various search engines, writing search queries
	3rd	Browser features, browsing, using various search engines, writing search queries
	4th	Browser features, browsing, using various search engines, writing search queries
2nd	1st	Visit various e-governance/Digital India portals, understand their features, services offered.
	2nd	Visit various e-governance/Digital India portals, understand their features, services offered.
	3rd	Visit various e-governance/Digital India portals, understand their features, services offered
	4th	Visit various e-governance/Digital India portals, understand their features, services offered.
3rd	1st	Visit various e-governance/Digital India portals, understand their features, services offered.
	2nd	Read Wikipedia pages on computer hardware components, look at those components in lab, identify them, recognize various ports/interfaces and related cables, etc.
	3rd	Read Wikipedia pages on computer hardware components, look at those components in lab, identify them, recognize various ports/interfaces and related cables, etc.
	4th	Read Wikipedia pages on computer hardware components, look at those components in lab, identify them, recognize various ports/interfaces and related cables, etc.
4th	1st	Read Wikipedia pages on computer hardware components, look at those components in lab, identify them, recognize various ports/interfaces and related cables, etc.
	2nd	Read Wikipedia pages on computer hardware components, look at those components in lab, identify them, recognize various ports/interfaces and related cables, etc..
	3rd	Read Wikipedia pages on computer hardware components, look at those components in lab, identify them, recognize various ports/interfaces and related cables, etc...
	4th	Read Wikipedia pages on computer hardware components, look at those components in lab, identify them, recognize various ports/interfaces and related cables, etc..
5th	1st	Install Linux and Windows operating system on identified lab machines, explore various options, do it multiple times.
	2nd	Install Linux and Windows operating system on identified lab machines, explore various options, do it multiple times..
	3rd	Install Linux and Windows operating system on identified lab machines, explore various options, do it multiple times.
	4th	Install Linux and Windows operating system on identified lab machines, explore various options, do it multiple times
6th	1st	Connect various peripherals (printer, scanner, etc.) to computer, explore various features of peripheral and their device driver software
	2nd	Connect various peripherals (printer, scanner, etc.) to computer, explore various features of peripheral and their device driver software
	3rd	Connect various peripherals(printer,scanner,etc)to computer,explore various features of peripheral and their device driver software
	4th	Connect various peripherals(printer,scanner,etc)to computer,explore various features of peripheral and their device driver software
7th	1st	Practice HTML commands, try them with various values, make your own Webpage.
	2nd	Practice HTML commands, try them with various values, make your own Webpage.
	3rd	Practice HTML commands, try them with various values, make your own Webpage.
	4th	Practice HTML commands, try them with various values, make your own Webpage
8th	1st	Practice HTML commands,try them with various values,make your own Webpage.

	2nd	Practice HTML commands,try them with various values,make your own Webpage
	3rd	Practice HTML commands,try them with various values,make your own Webpage.
	4th	Practice HTML commands,try them with various values,make your own Webpage
9th	1st	Explore features of Open Office tools, create documents using these features, do it multiple times
	2nd	Explore features of Open Office tools, create documents using these features, do it multiple times
	3rd	Explore features of Open Office tools, create documents using these features,do it multiple times
	4th	Explore features of Open Office tools, create documents using these features, do it multiple times
10th	1st	Explore security features of Operating Systems and Tools, try using them and see what happens
	2nd	Explore security features of Operating Systems and Tools, try using them and see what happens
	3rd	Explore security features of Operating Systems and Tools, try using them and see what happens
	4th	Explore security features of Operating Systems and Tools, try using them and see what happens
11th	1st	Explore security features of Operating Systems and Tools, try using them and see what happens
	2nd	Record Submission
	3rd	Doubt classes
	4th	Doubt classes
12th	1st	Practice Browser features, browsing, using various search engines, writing search queries
	2nd	Practice to Visit various e-governance/Digital India portals, understand their features, services offered
	3rd	Read Wikipedia pages on computer hardware components, look at those components in lab, identify them, recognize various ports/interfaces and related cables, etc
	4th	Read Wikipedia pages on computer hardware components, look at those components in lab, identify them, recognize various ports/interfaces and related cables, etc
13th	1st	Discussed viva questions on Install Linux and Windows operating system on identified lab machines, explore various options, do it multiple times.
	2nd	Doubt clear on Connecting various peripherals (printer, scanner, etc.) to computer, explore various features of peripheral and their device driver software
	3rd	Practice HTML commands, try them with various values, make your own Webpage.
	4th	Practice HTML commands, try them with various values, make your own Webpage.
14th	1st	Explore features of Open Office tools, create documents using these features, do it multiple times
	2nd	Explore features of Open Office tools, create documents using these features, do it multiple times
	3rd	Explore security features of Operating Systems and Tools, try using them and see what happens
	4th	Explore security features of Operating Systems and Tools, try using them and see what happens
15th	1st	Explore security features of Operating Systems and Tools, try using them and see what happens
	2nd	Explore security features of Operating Systems and Tools, try using them and see what happens
	3rd	Explore security features of Operating Systems and Tools, try using them and see what happens
	4th	Explore security features of Operating Systems and Tools, try using them and see what happens

K. Suresh Kumar
Signature of Faculty

P. Adarsh
14/08/25
(HOD)

(Hum. & Sc.)

LESSON PLAN FOR WINTER SEMESTER(2025-26)

Discipline : 1ST Semester(common for all branch)

Name of the Faculty: PADMINI PANIGRAHI (Lect Stage-II. Mathematics,GP, Kalahandi)

Subject:
Mathematics-I

4 theory

From: 11/08/2024 To: 04/12/2024

No. of

Week

Class Day

Weeks: 17 Total no. periods : 60 Theory

Theory

Range

Week	Class Day	Theory	Range
1st	1st	UNIT - I: Trigonometry of angles, measurement of angles in degrees, grades and radians and their	11.08.2025 to 16.08.2025
	2nd	Concept conversions	
	3rd	T-Ratios of Allied angles (without proof)	
	4th	T-Ratios of Allied angles (without proof)	
2nd	1st	Sum, difference formulae and their applications (without proof)	18.08.2025 to 23.08.2025
	2nd	Sum, difference formulae and their applications (without proof)	
	3rd	Product formulae (Transformation of product to sum, difference and vice versa)	
	4th	Product formulae (Transformation of product to sum, difference and vice versa)	
3rd	1st	T- Ratios of multiple angles, sub-multiple angles (2A, 3A, A/2).	25.08.2024 to 30.08.2024
	2nd	T- Ratios of multiple angles, sub-multiple angles (2A, 3A, A/2).	
	3rd	T- Ratios of multiple angles, sub-multiple angles (2A, 3A, A/2).	
	4th	Graphs of sin x, cos x, tan x and ex	
4th	1st	Graphs of sin x, cos x, tan x and ex	01.09.2025 to 06.09.2025
	2nd	UNIT-II: Differential Calculus Definition of function;	
	3rd	Concept of limits	
	4th	Four standard limits	
5th	1st	Four standard limits	08.09.2025 to 13.09.2025
	2nd	Differentiation by definition of x^n	
	3rd	Differentiation by definition of $\sin x, \cos x, \tan x$	
	4th	Differentiation by definition of $\log x, e^x$	
6th	1st	Differentiation of sum, product and quotient of functions.	15.09.2025 to 20.09.2025
	2nd	Differentiation of function of a function	
	3rd	Differentiation of function of a function	
	4th	Differentiation of trigonometric and inverse trigonometric functions,	
7th	1st	Differentiation of trigonometric and inverse trigonometric functions,	22.09.2025 to 27.09.2025
	2nd	Logarithmic differentiation, Exponential functions	
	3rd	Logarithmic differentiation, Exponential functions	
	4th	Logarithmic differentiation, Exponential functions	
8th	1st	UNIT - III: Algebra Complex Numbers: Definition, real and imaginary parts of a Complex number	29.09.2025 to 04.10.2025
	2nd	polar and Cartesian representation of a complex number and its conversion from one form to other	
	3rd	polar and Cartesian representation of a complex number and its conversion from one form to other	
	4th	conjugate of a complex number	
9th	1st	modulus and amplitude of a complex number	06.10.2025 to 11.10.2025
	2nd	Addition, Subtraction, Multiplication and Division of a complex number.	
	3rd	Addition, Subtraction, Multiplication and Division of a complex number.	
	4th	Addition, Subtraction, Multiplication and Division of a complex number.	

10th	1st	De-movier's theorem, its application.	13.10.2025 to 18.10.2025
	2nd	De-movier's theorem, its application.	
	3rd	De-movier's theorem, its application.	
	4th	De-movier's theorem, its application.	
11th	1st	Partial fractions: Definition of polynomial fraction proper & improper fractions and definition of partial fractions	20.10.2025 to 25.10.2025
	2nd	To resolve proper fraction into partial fraction with denominator containing non-repeated linear factors	
	3rd	To resolve proper fraction into partial fraction with denominator containing non-repeated linear factors	
	4th	To resolve proper fraction into partial fraction with denominator containing repeated linear factors	
12th	1st	To resolve proper fraction into partial fraction with denominator containing repeated linear factors	27.10.2025 to 01.11.2025
	2nd	To resolve proper fraction into partial fraction with denominator containing irreducible non-repeated quadratic factors	
	3rd	To resolve proper fraction into partial fraction with denominator containing irreducible non-repeated quadratic factors	
	4th	To resolve improper fraction into partial fraction.	
13th	1st	To resolve improper fraction into partial fraction.	03.11.2025 to 08.11.2025
	2nd	To resolve improper fraction into partial fraction.	
	3rd	Permutations and Combinations: Value of nPr and nCr .	
	4th	Permutations and Combinations: Value of nPr and nCr .	
14th	1st	Permutations and Combinations: Value of nPr and nCr .	10.11.2025 to 15.11.2025
	2nd	Permutations and Combinations: Value of nPr and nCr .	
	3rd	Binomial theorem: Binomial theorem (without proof) for positive integral index (expansion and general form);	
	4th	Binomial theorem: Binomial theorem (without proof) for positive integral index (expansion and general form);	
15th	1st	Binomial theorem: Binomial theorem (without proof) for positive integral index (expansion and general form);	17.11.2025 to 22.11.2025
	2nd	binomial theorem for any index (expansion without proof)	
	3rd	binomial theorem for any index (expansion without proof)	
	4th	binomial theorem for any index (expansion without proof)	
16th	1st	binomial theorem for any index (expansion without proof)	24.11.2025 to 29.11.2025
	2nd	binomial theorem for any index (expansion without proof)	
	3rd	first and second binomial approximation with applications to engineering problems	
	4th	first and second binomial approximation with applications to engineering problems	
17th	1st	first and second binomial approximation with applications to engineering problems	01.12.2025 to 04.12.2025
	2nd	first and second binomial approximation with applications to engineering problems	
	3rd	first and second binomial approximation with applications to engineering problems	
	4th	first and second binomial approximation with applications to engineering problems	

Paalmini
11/08/24.

Sign. Of the Course Coordinator

Paalmini
11/08/24.

H.O.D

Academic Co-Ordinator

LESSON PLAN

SUB: ENVIRONMENTAL SCIENCE

Name of the Teaching Faculty:
Sushreeta Behera, Lecturer in Chemistry

Semester:1st
Class allotted:60

Class	Theory Topics
1	ECOSYSTEM: INTRODUCTION, TYPES OF ECOSYSTEM (NATURAL AND ARTIFICIAL ECOSYSTEM): AQUATIC (LENTIC AND LOTIC) AND TERRESTRIAL ECOSYSTEM
2	STRUCTURE OF ECOSYSTEM (BIOTIC & ABIOTIC COMPONENTS)
3	FOOD CHAIN
4	FOOD WEB AND CARBON CYCLE
5	NITROGEN CYCLE
6	SULPHUR & PHOSPHORUS CYCLE
7	GLOBAL WARMING :CAUSES, EFFECTS, PROCESS, GREEN HOUSE EFFECT
8	OZONE LAYER DEPLETION
9	SEMINAR/ PAPER PRESENTATION BY STUDENTS
10	SEMINAR/ PAPER PRESENTATION BY STUDENTS
11	QUIZ & DISCUSSION OF ASSIGNMENT QUESTIONS
12	AIR AND NOISE POLLUTION: DEFINITION OF POLLUTION AND IT'S TYPE. POLLUTANTS & IT'S TYPE
13	NATURAL AND MANMADE SOURCES OF AIR POLLUTION. AIR POLLUTANTS(PRIMARY & SECONDARY)
14	PARTICULATE POLLUTANTS & IT'S EFFECT. EFFECTS OF AIR POLLUTION DUE TO REFRIGERANTS, I.C., BOILER.
15	CONTROL MEASURES: BAG FILTERS & IT'S TYPE. SHAKER BAG FILTERS
16	REVERSE AIR BAG FILTERS & PULSE JET TYPE BAG FILTERS
17	CYCLONE SEPARATOR & ELECTROSTATIC PRECIPITATOR
18	GASEOUS POLLUTION CONTROL: ABSORBER &CATALYTIC CONVERTER. QUIZ ON AIR POLLUTION
19	NOISE POLLUTION: SOURCES OF POLLUTION, MEASUREMENT OF POLLUTION LEVEL
20	EFFECTS OF NOISE POLLUTION, NOISE POLLUTION (REGULATION AND CONTROL) RULES, 2000
21	SEMINAR/PAPER PRESENTATION BY STUDENTS
22	SEMINAR/PAPER PRESENTATION BY STUDENTS

23	QUIZ & DISCUSSION OF ASSIGNMENT QUESTIONS
24	WATER POLLUTION: SOURCES OF WATER POLLUTION, TYPES OF WATER POLLUTANTS
25	CHARACTERISTICS OF WATER POLLUTANTS: TURBIDITY, PH, TOTAL SUSPENDED SOLIDS, TOTAL SOLIDS .BOD AND COD: DEFINITION, CALCULATION
26	WASTE WATER TREATMENT: PRIMARY METHODS: SEDIMENTATION, FROTH FLOATATION
27	SECONDARY METHODS: ACTIVATED SLUDGE TREATMENT, TRICKLING FILTER, BIOREACTOR
28	TERTIARY METHOD: MEMBRANE SEPARATION TECHNOLOGY, RO (REVERSE OSMOSIS).
29	SOIL POLLUTION: CAUSES-EXCESSIVE USE OF FERTILIZERS, PESTICIDES AND INSECTICIDES, IRRIGATION, E-WASTE
30	EFFECTS AND PREVENTIVE MEASURES OF SOIL POLLUTION
31	PRESENTATION OF CASE STUDY BY STUDENTS
32	SEMINAR BY STUDENTS
33	QUIZ & DISCUSSION OF ASSIGNMENT QUESTIONS
34	RENEWABLE SOURCES OF ENERGY: SOLAR ENERGY: BASICS OF SOLAR ENERGY. FLAT PLATE COLLECTOR (LIQUID & AIR). THEORY OF FLAT PLATE COLLECTOR
35	IMPORTANCE OF COATING. ADVANCED COLLECTOR. SOLAR POND & SOLAR DRYER
36	SOLAR WATER HEATER & SOLAR STILL
37	BIOMASS & THERMAL CHARACTERISTICS OF BIOMASS AS FUEL.
38	ANAEROBIC DIGESTION. BIOGAS PRODUCTION MECHANISM.
39	UTILIZATION AND STORAGE OF BIOGAS.
40	WIND ENERGY: CURRENT STATUS AND FUTURE PROSPECTS OF WIND ENERGY. WIND ENERGY IN INDIA
41	ENVIRONMENTAL BENEFITS AND PROBLEM OF WIND ENERGY NEW ENERGY SOURCES: NEED OF NEW SOURCES. DIFFERENT TYPES NEW ENERGY SOURCES
42	APPLICATIONS OF HYDROGEN ENERGY AND OCEAN ENERGY RESOURCES, TIDAL ENERGY CONVERSION.
43	CONCEPT, ORIGIN & POWER PLANTS OF GEOTHERMAL ENERGY
44	PAPER PRESENTATION & SEMINAR BY STUDENTS
45	PAPER PRESENTATION & SEMINAR BY STUDENTS
46	QUIZ & DISCUSSION OF ASSIGNMENT QUESTIONS
47	INTRODUCTION, SOLID WASTE GENERATION: SOURCES AND CHARACTERISTICS OF MUNICIPAL SOLID WASTE. BIODEGRADABLE & NON-BIODEGRADABLE SOLID WASTE
48	SOURCES AND CHARACTERISTICS OF: E- WASTE, BIO- MEDICAL WASTE.
49	METALLIC WASTES AND NON-METALLIC WASTES (LUBRICANTS, PLASTICS, RUBBER) FROM INDUSTRIES.
50	COLLECTION AND DISPOSAL: MSW (3R, PRINCIPLES, ENERGY RECOVER)
51	SANITARY LANDFILL, HAZARDOUS WASTE & ITS DISPOSAL
52	AIR QUALITY ACT 2004, AIR POLLUTION CONTROL ACT 1981
53	WATER POLLUTION AND CONTROL ACT 1974
54	STRUCTURE AND ROLE OF CENTRAL AND STATE POLLUTION CONTROL BOARD.
55	CONCEPT OF CARBON CREDIT, CARBON FOOTPRINT. ENVIRONMENTAL MANAGEMENT IN FABRICATION INDUSTRY.
56	ISO14000: IMPLEMENTATION IN INDUSTRIES, BENEFITS.
57	PAPER PRESENTATION & SEMINAR BY STUDENTS
58	PAPER PRESENTATION & SEMINAR BY STUDENTS
59	DISCUSSION OF QUESTION BANK
60	QUIZ & DISCUSSION OF ASSIGNMENT QUESTIONS

Sukneeti Behera
Signature of the faculty

Padmini
Signature of the H.O.D

Lesson Plan of Engg. Graphics (PR3a) (60 Periods)
Semester & Branch : 1st Sem Civil. & 1st Sem Mechanical.
Session : 2025-Winter

Name of the Teaching Faculty: Ashis Kashyap

Semester from Date: 13.08.2025

To Date: 4.12.2025

No. of Weeks: 17

No. of Days per Week: 4

Chapters	Periods	Week	Class Day	Topics to be covered
Chapter-1 (BASIC ELEMENTS OF DRAWING) (10 Periods)	1	1st	1	●1.1 Drawing Instruments and supporting materials
	2		2	●1.2 Method to use them with applications.
	3		3	●1.3 Convention of lines and their applications
	4		4	●1.4 Representative Fractions – reduced, enlarged and full size scales;
	5	2nd	1	●1.4 Representative Fractions – reduced, enlarged and full size scales;
	6		2	●1.4 Representative Fractions – reduced, enlarged and full size scales;
	7		3	●1.5 Engineering Scales such as plain and diagonal scale.
	8		4	●1.6 Dimensioning techniques as per SP-46:2003
	9	3rd	1	●1.7 types and applications of chain, parallel and coordinate dimensioning.
	10		2	●1.8 Geometrical and Tangency constructions. (Redraw the figure)
Chapter-2 (ORTHOGRAPHIC	11		3	●2.1 Introduction of projections-orthographic, perspective, isometric and oblique: concept and applications.
	12		4	●2.1 Introduction of projections-orthographic, perspective, isometric and oblique: concept and applications.
	13	4th	1	●2.1 Introduction of projections-orthographic, perspective, isometric and oblique: concept and applications.
	14		2	●2.2 Introduction to orthographic projection, First angle and Third angle method, their symbols.
	15		3	●2.2 Introduction to orthographic projection, First angle and Third angle method, their symbols.

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ORTHOGRAPHIC
PROJECTIONS)
(10 Periods)

16		4	●2.2 Introduction to orthographic projection, First angle and Third angle method, their symbols.
17	5th	1	●2.3 Conversion of pictorial view into Orthographic Views – object containing plain surfaces, slanting surfaces, slots, ribs, cylindrical surfaces
18		2	●2.3 Conversion of pictorial view into Orthographic Views – object containing plain surfaces, slanting surfaces, slots, ribs, cylindrical surfaces
19		3	●2.3 Conversion of pictorial view into Orthographic Views – object containing plain surfaces, slanting surfaces, slots, ribs, cylindrical surfaces
20		4	●2.3 Conversion of pictorial view into Orthographic Views – object containing plain surfaces, slanting surfaces, slots, ribs, cylindrical surfaces
21	6th	1	●3.1 Introduction to isometric projections. Isometric scale and Natural scale.
22		2	●3.1 Introduction to isometric projections. Isometric scale and Natural scale.
23		3	●3.2 Isometric view and isometric projection.
24		4	●3.2 Isometric view and isometric projection.
25	7th	1	●3.3 Illustrative problems related to objects containing lines, circles and arcs shape only.
26		2	●3.3 Illustrative problems related to objects containing lines, circles and arcs shape only.
27		3	●3.3 Illustrative problems related to objects containing lines, circles and arcs shape only.
28		4	●3.4 Conversion of orthographic views into isometric view/projection
29	8th	1	●3.4 Conversion of orthographic views into isometric view/projection
30		2	●3.4 Conversion of orthographic views into isometric view/projection
31		3	●4.1 Free hand sketches of machine elements: Thread profiles, nuts, bolts, studs, set screws, washer, Locking arrangements.
32		4	●4.1 Free hand sketches of machine elements: Thread profiles, nuts, bolts, studs, set screws, washer, Locking arrangements.
33	9th	1	●4.1 Free hand sketches of machine elements: Thread profiles, nuts, bolts, studs, set screws, washer, Locking arrangements.
34		2	●4.1 Free hand sketches of machine elements: Thread profiles, nuts, bolts, studs, set screws, washer, Locking arrangements.

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Chapter-4
(FREE-HAND
SKETCHES OF
ENGG. ELEMENTS)
(10 Periods)

35		3	●4.1 Free hand sketches of machine elements: Thread profiles, nuts, bolts, studs, set screws, washer, Locking arrangements.
36		4	●4.2 Free hand sketches of orthographic view (on squared graph paper) and isometric view (on isometric grid paper)
37	10th	1	●4.2 Free hand sketches of orthographic view (on squared graph paper) and isometric view (on isometric grid paper)
38		2	●4.2 Free hand sketches of orthographic view (on squared graph paper) and isometric view (on isometric grid paper)
39		3	●4.2 Free hand sketches of orthographic view (on squared graph paper) and isometric view (on isometric grid paper)
40		4	●4.2 Free hand sketches of orthographic view (on squared graph paper) and isometric view (on isometric grid paper)
41	11th	1	●5.1 Computer Aided Drafting: concept.
42		2	●5.2 Hardware and various CAD software available.
43		3	●5.3 System requirements and Understanding the interface.
44		4	●5.4 Components of AutoCAD software window: Title bar, standard tool bar, menu bar, object properties tool bar, draw tool bar, modify tool bar, cursor cross hair
45	12th	1	●5.4 Components of AutoCAD software window: Title bar, standard tool bar, menu bar, object properties tool bar, draw tool bar, modify tool bar, cursor cross hair
46		2	●5.4 Components of AutoCAD software window: Title bar, standard tool bar, menu bar, object properties tool bar, draw tool bar, modify tool bar, cursor cross hair
47		3	●5.5 Command window, status bar, drawing area, UCS icon.
48		4	●5.5 Command window, status bar, drawing area, UCS icon.
49	13th	1	●5.6 File features: New file, Saving the file, Opening an existing drawing file, Creating templates, Quit.

Chapter-5
(COMPUTER
AIDED DRAFTING
INTERFACE)
(10 Periods)

Ash's Kashyap.

Chapter-6 (COMPUTER AIDED DRAFTING) (10 Periods)	50		2	●5.7 Setting up new drawing: Units, Limits, Grid, Snap. Undoing and redoing action
	51		3	●6.1 Draw basic entities like Line, Circle, Arc, Polygon, Ellipse, Rectangle, Multiline, PolyLine.
	52		4	●6.1 Draw basic entities like Line, Circle, Arc, Polygon, Ellipse, Rectangle, Multiline, PolyLine.
	53	14th	1	●6.2 Method of Specifying points: Absolute coordinates, Relative Cartesian and Polar coordinates.
	54		2	●6.3 Modify and edit commands like trim, extend, delete, copy, offset, array, block, layers.
	55		3	●6.3 Modify and edit commands like trim, extend, delete, copy, offset, array, block, layers.
	56		4	●6.4 Dimensioning: Linear, Horizontal Vertical, Aligned, Rotated, Baseline, Continuous, Diameter, Radius, Angular Dimensions.
	57	15th	1	●6.5 Dim scale variable. Editing dimensions.
	58		2	●6.6 Text: Single line Text, Multiline text.
	59		3	●6.7 Standard sizes of sheet. Selecting Various plotting parameters such as Paper size, paper units,
60		4	●6.8 Drawing orientation, plot scale, plot offset, plot area, print preview.	
Revision and Previous Year Question Paper	61	16th	1	Chapter-1 Revision (BASIC ELEMENTS OF DRAWING) Previous Year Question Practice
	62		2	Chapter-2 Revision (ORTHOGRAPHIC PROJECTIONS) Previous Year Question Practice
	63		3	Chapter-3 Revision (ISOMETRIC PROJECTIONS) Previous Year Question Practice
	64		4	Chapter-4 Revision (FREE-HAND SKETCHES OF ENGG. ELEMENTS) Previous Year Question Practice
	65	17th	1	Chapter-4 Revision (FREE-HAND SKETCHES OF ENGG. ELEMENTS) Previous Year Question Practice
	66		2	Chapter-5 Revision (COMPUTER AIDED DRAFTING INTERFACE) Previous Year Question Practice
	67		3	Chapter-6 Revision (COMPUTER AIDED DRAFTING) Previous Year Question Practice
	68		4	Chapter-6 Revision (COMPUTER AIDED DRAFTING) Previous Year Question Practice

Ashis Kashyap,
(G.F., Civil Dept.)

Pradman
13/08/25
H.O.D/E
(Hum. & S.C.)