NMDC DAV POLYTECHNIC

EDUCATION CITY JAWANGA, GEEDAM, DANTEWADA

COURSE DETAILS

DEPARTMENT OF BASIC SCIENCE & HUMANITIES

Diploma in Engineering

Academic Session: Jul - Dec 2024

Branch: Mechanical

Semester: 1

Name of Subject: Applied Chemistry

Faculty Name: Dr. Rubina Sahin

Designation: Lecturer (Chemistry)

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(1)

Chhattisgarh Swami Vivekanand Technical University (Academic Calendar-2024-2025)

SN	Activity Session (July-Dec - 2024)	Diploma Engineering 5th Semester	Diploma Engineering 3rd Semester	Diploma Engineering 1st Semester
1	**Schedule of classes:**	20-Aug-24 To 06-Dec-24	02-Sep-24 To 20-Dec-24	15-Sep-24 To 06-Jan-25
2	**Induction program 1st Yr UG Students:** 3 week			15-Sep-24
3	**Assignment-1:** To be given at least 15 working days before the start of CT-1.	7-Sep-24	20-Sep-24	4-Oct-24
4	**Inter-Branch / College Level Sports Competition**	23-Sep-24 - 05-Oct-24	23-Sep-24 - 05-Oct-24	23-Sep-24 - 05-Oct-24
5	**Last Date for Evaluation of Assignment-1:**	27-Sep-24	15-Oct-24	28-Oct-24
6	**First Syllabus Coverage Submission to University via Google Link:** The Google link will be open for 3 working days when the Class Test (CT) begins.	28-Sep-24 - 01-Oct-24	11-Oct-24 - 14-Oct-24	24-Oct-24 - 26-Oct-24
7	**Schedule of Class Test-1:** Class Test-1 will commence a minimum of 32 working days after the start of classes (40% syllabus coverage).	28-Sep-24 - 04-Oct-24	11-Oct-24 - 16-Oct-24	24-Oct-24 - 29-Oct-24
8	**Deadline for Showing Answer Scripts of CT-1 and Displaying Marks to Students:** Task must be completed within 5 days after the conclusion of Class Test-1.	10-Oct-24	22-Oct-24	5-Nov-24
9	**Assignment-2:** To be given at least 15 working days before the start of CT-2.	2-Nov-24	16-Nov-24	30-Nov-24
10	**College Level Youth Techfest**	05-Nov-24 - 20-Nov-24	05-Nov-24 - 20-Nov-24	05-Nov-24 - 20-Nov-24
11	**Commencement Date for Submitting the Online Exam Form:** 30 days before the commencement of exams.	20-Nov-24	04-Dec-24	19-Dec-24
12	**Last Date for Evaluation of Assignment-2:**	22-Nov-24	5-Dec-24	19-Dec-24
13	**Last Date for Submitting the Online Exam Form Without Late Fees:**	24-Nov-24	08-Dec-24	23-Dec-24
14	**Second Syllabus Coverage Submission to University via Google Link** The Google link will be open for 3 working days when CT-2 begins.	26-Nov-24 - 28-Nov-24	10-Dec-24 - 12-Dec-24	27-Dec-24 - 30-Dec-24
15	**Semester Academic Review Meeting:**	28-Nov-24	12-Dec-24	30-Dec-24
16	**Schedule of Class Test-2:** Class Test-2 will commence at least 10 working days before the end of classes.	26-Nov-24 - 30-Nov-24	10-Dec-24 - 14-Dec-24	27-Dec-24 - 01-Jan-25
17	**Last Date for Submitting the Online Exam Form With ₹30 Late Fees:**	28-Nov-24	12-Dec-24	27-Dec-24
18	**Last Date for Submitting the Online Exam Form With ₹120 Late Fees:**	02-Dec-24	16-Dec-24	31-Dec-24
19	**Last Date for Submitting the Online Exam Form With ₹200 Late Fees:**	06-Dec-24	20-Dec-24	04-Jan-25
20	**Deadline for Showing Answer Scripts of CT-2 and Displaying Marks to Students:** Task must be completed within 5 days after the conclusion of Class Test-2	6-Dec-24	20-Dec-24	6-Jan-25
21	**Last Date for Exam Form Approval by Institute:**	07-Dec-24	21-Dec-24	05-Jan-25
22	**Internal Assessment:** Internal assessment will start before the 3 days of external practical exam	08-Dec-24 - 10-Dec-24	21-Dec-24 - 23-Dec-24	07-Jan-25 - 09-Jan-25
23	**Schedule of Practical Exams**	11-Dec-24 - 16-Dec-24	24-Dec-24 - 28-Dec-24	10-Jan-25 - 14-Jan-25
24	**Submission of online practical marks** The portal opens on the first day of the practical exam and closes 5 days after the completion of practical exams.	11-Dec-24 - 23-Dec-24	24-Dec-24 - 04-Jan-25	10-Jan-25 - 21-Jan-25
25	**Preparation Leave:** Preperation leave begin after practical examand will end before the commencement of the theory exams.	17-Dec-24 - 19-Dec-24	29-Dec-24 - 02-Jan-25	15-Jan-25 - 17-Jan-25
26	**Schedule of Theory Exams:**	20-Dec-24 - 31-Dec-24	03-Jan-25 - 15-Jan-25	18-Jan-25 - 28-Jan-25
27	**Submission of Online Sessional Marks:** The portal opens at the start of the theory exam and closes 5 days after the completion of theory exams.	20-Dec-24 - 06-Jan-25	03-Jan-25 - 21-Jan-25	18-Jan-25 - 03-Feb-25
28	**Winter / Semester Break :**	01-Jan-25 - 05-Jan-25	16-Jan-25 - 19-Jan-25	01-Feb-25 - 04-Feb-25
29	**Result Declaration:**	01-Mar-25	16-Mar-25	29-Mar-25
	Note:			
	1). Google form link for providing syllabus coverage : https://forms.gle/PwAz3fH7mC77deCp7			
	2). Dates may be preponed or postponed. Any changes will be notified on the website.			
	3). The Revaluation form will be open for 10 days, and the Re-Revaluation form will be available for 7 days after the result declaration			

I/C Exam

Registrar

Chhattisgarh Swami Vivekanand Technical University, Bhilai

Diploma in Mechanical/Metallurgy/Mining/Chemical Engineering (Group-IB) **Semester-I**

O) Course Curriculum Map:

POs & PSOs No.	COs No. & Titles	SOs No.	Laboratory Instruction (P)	Classroom Instruction (L)	Self Learning (SL)
PO - 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 PSOs - 2	CO-1 Identify the force systems for different conditions using concepts of mechanics.	SO1.1 SO1.2 SO1.3 SO1.4 SO1.5	LE1.1 LE1.2 LE1.3 LE1.4 LE1.5 LE1.6	UnR-1.0 Fundamentals and Resolution of Forces 1.1,1.2,1.3,1.4,1.5, 1.6, 1.7	As mentioned in relevant pages
PO - 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 PSOs – 1, 2, 3	CO-2 Find the Centroid and Centre of gravity of various engineering components.	SO2.1 SO2.2 SO2.3	LE2.1 LE2.2	UnR-2.0 Centroid and Moment of Inertia 2.1, 2.2 ,2.3, 2.4, 2.5	
PO - 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 PSOs – 2, 3	CO-3 Estimate force of friction in various conditions.	SO3.1 SO3.2 SO3.3 SO3.3	LE3.1 LE3.2 LE3.3	UnR-3.0 Friction 3.1, 3.2, 3.3, 3.4	
PO - 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 PSOs - 1, 2, 3	CO-4 Estimate velocities and accelerations in various linear and curvilinear motions.	SO4.1 SO4.2	LE4.1	UnR-4.0 Kinematics and Kinetics 4.1, 4.2, 4.3, 4.2, 4.4, 4.5, 4.6	
PO - 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 PSOs – 2, 3	CO-5 Calculate power, torque and energy associated with various engineering applications.	SO5.1 SO5.2 SO5.3 SO5.4	LE5.1 LE5.2	UnR-5.0 Work, Power and Energy 5.1, 5.2, 5.3, 5.4	
PO - 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 PSOs – 2, 3	CO-6 Select suitable power transmission mode, simple lifting machine and estimate related parameters for various situations.	SO6.1 SO6.2 SO6.3	LE6.1 LE6.2 LE6.3 LE6.4	UnR-6.0 Simple Lifting Machines and Transmission of power 6.1, 6.2, 6.3, 6.4	

Chhattisgarh Swami Vivekanand Technical University, Bhilai

Diploma in Mechanical/Metallurgy/Mining/Chemical Engineering (Group-IB) **Semester-I**

A) Course Code : 2000178(011)
B) Course Title : Applied Chemistry
C) Pre- requisite Course Code and Title :
D) Rationale :

Diploma engineers have to deal with various materials. The study of concepts of chemistry and application parts from applied chemistry like atomic structures, chemical bonding, water treatment and analysis, electrochemistry and batteries, metals, alloys, insulators, fuels and combustion will help in understanding the technology courses where emphasis is laid on the applications of these concepts and principles in different technology applications. This course is designed by which fundamental information will help the technologists to apply the basic concepts and principles of chemistry to solve broad-based problems.

E) Course Outcomes:

CO-1 Solve various engineering problems applying the basic knowledge of atomic structure and chemical bonding.

CO-2 Use relevant water treatment method to solve industrial problems.

CO-3 Solve the engineering problems using concept of Electrochemistry.

CO-4 Solve the engineering problems by applying the knowledge of metallurgical process and Metals Alloys.

CO-5 Use relevant fuel and lubricants for industrial applications.

F) Scheme of Studies:

S.No	Board of Study	Course Code	Course Title	Scheme of Studies (Hours/Week)			
				L	P	T	Total Credits(C) L+T+(P/2)
1	Applied Science	2000178 (011)	Applied Chemistry	2	-	1	3
2	Applied Science	2000191 (011)	Applied Chemistry (Lab)	-	2	-	1

Legend: L: Classroom Instruction (Includes different instructional strategies i.e. Lecture and others), P: Laboratory Instruction (Includes Practical performances in laboratory workshop, field or other locations using different instructional strategies),T- Tutorial Includes Sessional Work(SW) (assignment, seminar, mini project etc.) and Self Learning(SL), C:Credits

Note: SW and SL has to be planned and performed under the continuous guidance and feedback of teacher to ensure outcome of Learning

G) Scheme of Assessment:

S.No	Board of Study	Course Code	Course Title	Scheme of Examination					
				Theory			Practical		Total Marks
				ESE	CT	TA	ESE	TA	
1	Applied Science	2000178 (011)	Applied Chemistry	70	20	30	-	-	120
2	Applied Science	2000191 (011)	Applied Chemistry (Lab)	-	-	-	30	50	80

Note: I. Separate passing is must for TA component of Progressive assessment, both for theory and practical.
II. Separate passing is must for End Semester Exam (Theory) and End Semester Exam (Practical).

H) Course-Curriculum Detailing:

This course curriculum detailing depicts learning outcomes at course level and session level and their attainment by the students through Classroom Instruction (L), Laboratory Instruction (P), T- Tutorial Includes Sessional Work (SW) and Self Learning (SL). Students are expected to demonstrate the attainment of Session Outcomes (SOs) and finally Course Outcomes (COs) upon the completion of course.

CO-1 Solve various engineering problems applying the basic knowledge of atomic structure and chemical bonding.

(Approx. Hrs:L+P+T=14)

Session Outcomes (SOs)	Laboratory Instruction (P)	Class room Instruction (L)	Self Learning (SL)
SO1.1 Determine the electronic structure of the given atom for the material used in industry. SO1.2 Calculate the quantum numbers for various energy levels of industrially applicable metals. SO1.3 Use theory of chemical bonding for identification of different properties material used in the industries.	–	**Unit-1.0 Atomic Structure and Chemical Bonding** 1.1 Atomic Structure 1.1.1 Electronic structure of atoms, 1.1.2 Discovery of electrons, protons and neutrons. 1.1.3 Rutherford model and Bohr's – Burry scheme of distributions of electrons. 1.1.4 Heisenber's uncertainty principle, 1.1.5 Quantum numbers, sub energy level 1.1.6 Distribution of electrons in sub-shells and concept of Electronic configuration of atoms, 1.1.7 Auffbaus's rule, 1.1.8 Pauli's exclusion principle. 1.1.9 Hund's rule of maximum multiplicity. 1.2 Chemical Bonding 1.2.1 Theory of Chemical Bonding, 1.2.2 Types of Bonds, a. Ionic or electrovalent bonds, b. Covalent bond, c. coordination bond, d. Hydrogen bonding.	• Discovery of electrons, protons and neutrons.

SW-1 Suggested Sessional Work (SW):

a. Assignments:
I. Write electronic structure of the given atoms.

b. Mini Project:
I. Prepare Rutherford model and Bohr's – Burry models.
II. Create element cards with different elements showing covalent and ionic bonds.

c. Other Activities (Specify):
I. Seminar on Quantum numbers.

CO-2 Use relevant water treatment method to solve industrial problems.

(Approx. Hrs:L+P+T=18)

Session Outcomes (SOs)	Laboratory Instruction (P)	Class room Instruction (L)	Self Learning (SL)
SO2.1 Perform water softening for the industrial hard water. SO2.2 Use the relevant water treatment method for municipal water. SO2.3 Differentiate Natural and Synthetic Rubbers.	LE2.1 Determine total hardness, temporary hardness and permanent hardness of water sample by EDTA method. LE2.2 Determine the alkalinity of given water sample. LE2.3 Determine the turbidity in given water sample by Nephelometric method. LE2.4 Determine the total dissolved and suspended solids in given water sample. LE2.5 Determine the biological oxygen demand in the given water sample.	**Unit-2.0 (A) Water Treatment** 2.1 Hardness 2.1.1 Types of Hardness 2.1.2 Determination of hardness using EDTA method 2.2 Hard water 2.3 Boiler Problems 2.3.1 Boiler corrosion 2.3.2 caustic embrittlement 2.3.3 priming and foaming, 2.3.4 scales and sludges 2.4 Water softening: 2.4.1 lime sodaprocess a. Hot lime soda process b. Cold lime soda process, 2.4.2 Zeolite process, 2.4.3 Ion exchange process a. Cation exchange b. Anion exchange 2.5 Municipal Water Treatment, 2.5.1 Sedimentation 2.5.2 Coagulation 2.5.3 Filtration 2.5.4 Sterilization 2.6 BOD &COD	• Hardness • Types of Hardness

Session Outcomes (SOs)	Laboratory Instruction (P)	Class room Instruction (L)	Self Learning (SL)
		Unit-2.0 (B) Polymer 2.1 Classification of polymer 2.1.1 Types of rubber 2.1.2 Natural and, synthetic, 2.1.3 Processing of natural rubber. Syntheticrubber 2.1.4 Properties and applications of Buna-N, Thiokol, Neoprene.	

SW-2 Suggested Sessional Work (SW) :

a. Assignments:

I. Prepare model to find the soap foaming capacity of bore water on addition of soda ash.

b. Mini Project:

I. Collect water samples from different water sources and find the characteristics like acidity, conductivity, dissolved solids, suspended particles.

II. Collect 3 to 5 water samples to find the dosage of bleaching powder required for its sterilization.

c. Other Activities (Specify):

I. Seminar on impurities in municipal water Conduct a seminar on " ".

II. Visit the municipal water treatment plant.

III. Visit the DM water plant.

Chhattisgarh Swami Vivekanand Technical University, Bhilai

Diploma in Mechanical/Metallurgy/Mining/Chemical Engineering (Group-IB) Semester-I

CO-3 Solve the engineering problems using concept of Electrochemistry.

(Approx. Hrs:L+P+T=18)

Session Outcomes (SOs)	Laboratory Instruction (P)	Class room Instruction (L)	Self Learning (SL)
SO3.1 Describe the factors affecting of Conductance. SO3.2 Explain Electrical conductance in metals and Electrolytes SO3.3 Describe the different types of Electrodes & Batteries. SO3.4 Define Electrical Insulator and its classification	LE3.1 Determine the conductance of the given solution by conductometric titration. LE3.2 Determine the variation of conductance with temperature for the given Electrolytes. LE3.3 Determine the conductivity of given water sample. LE3.4 Determine the pH for given solution using glass electrode. LE3.5 Determine the voltage generated from chemical reaction using Daniel Cell.	Unit-3.0 (A) Electrochemistry and Batteries 3.1 Conductance: 3.1.1 Nature of solute, 3.1.2 Nature of solvent, 3.1.3 Temperature, 3.1.4 Concentration or dilution. 3.2 Electrical conductance in metals and electrolytes, 3.2.1 specific conductance, 3.2.2 equivalent conductance, 3.2.3 cell constant. 3.3 Electrodes: 3.3.1 Hydrogen electrode, 3.3.2 calomel electrode 3.3.3 glass electrode 3.4 Conductometric Titration 3.5 Batteries 3.5.1 Type of batters with examples 3.5.2 Primary battery 3.5.3 Secondary battery Unit-3.0 (B) Electrical insulator and thermocouple alloy 3.1 Electrical insulators: 3.1.1 Classification and example 3.2 Thermocouple alloy: Composition and characteristics 3.2.1 platinum /rhodium, 3.2.2 tungsten/ rhenium,	Conductance: • Nature of solute, • Nature of solvent, • Temperature, • Concentration or dilution.

SW-3 Suggested Sessional Work (SW) :

a. Assignments:

I. Prepare the chart displaying working process of lithium ion and NI & Cd batteries.

II. Prepare the model, expressing the working process of fuel cell.

III. Prepare chart showing properties of Thermocouple alloy.

b. **Mini Project:**
   I. Collect the samples of different types of electrodes used in various batteries and prepare a report on their conductance.
   II. Prepare the working model of Daniel cell and calculate the current flow by Daniel cell.
   III. Collect the sample of alloying elements like Pt, NI, W, Fe and prepare a report of their effects on the properties of thermocouple Alloy.

c. **Other Activities (Specify):**
   I. Organize quiz on Electric Conductivity.
   II. Organize quiz on metal insulators.

CO-4 Solve the engineering problems by applying the knowledge of metallurgical process and Metals Alloys.

(Approx. Hrs:L+P+T=14)

Session Outcomes (SOs)	Laboratory Instruction (P)	Class room Instruction (L)	Self Learning (SL)
SO4.1 Extract the ore from chemical reaction for industrial application SO4.2 Prepare the metal alloy for industrial application. SO4.3 Use the Refractory material for industrial applications.	LE4.1 Determine the percentage of copper in given copper ore. LE4.2 Standardization of $KMnO_4$ solution using standard oxalic acid and Determine the percentage of iron present in given Hematite ore by $KMnO_4$ solution.	**Unit- 4.0 (A) Metallurgy** 4.1 Metallurgy: 4.1.1 Mineral, 4.1.2 Ore, 4.1.3 Gangue, 4.1.4 Flux, 4.1.5 Slag. 4.2 Metallurgical process of iron and copper **Unit- 4.0 (B) Metal Alloys** 4.1 Properties of metals like copper, aluminum, tungsten, platinum nickel. 4.2 Ferrous alloys: 4.2.1 Low carbon 4.2.2 Medium carbon 4.2.3 High carbon steels. 4.3 Non-ferrous alloy: 4.3.1 Brass, 4.3.2 Bronze, 4.3.3 Duralumin, 4.3.4 Tinman Solder 4.3.5 Woods metal **Unit-4.0 (C) Cement:** 4.1 Portland cement, 4.1.1 Constituent 4.1.2 Setting and Hardening.	• Properties of metals like copper, aluminum, tungsten, platinum nickel.

SW-4 Suggested Sessional Work (SW) :

a. **Assignments:**
   I. Prepare chart showing properties of refractory materials.
   II. Prepare chart showing different industrial application of metal and relate it with required property or properties using internet.
   III. Prepare chart of showing percentage composition, properties and industrial applications of different types of steel based on above alloying elements using internet.

b. **Mini Project:**
   I. Collect different samples of cement and find their initial and final setting time.
   II. Find the effect of alloying elements like Mn, Cr, NI, W, V, Co on properties of steel.

c. **Other Activities (Specify):**
   I. Organize quiz on metal properties, Alloy and ores.
   II. Visit Metal Industries to learn metallurgy process.

CO-5 Use relevant fuel and lubricants for industrial applications.

(Approx. Hrs:L+P+T=16)

Session Outcomes (SOs)	Laboratory Instruction (P)	Class room Instruction (L)	Self Learning (SL)
SO5.1 Select the relevant fuel for industrial applications. SO5.2 Test the quality of coal for industrial uses. SO5.3 Perform fractional distillation process for refining of petroleum in industries. SO5.4 Test the properties of the given lubricant for industrial applications. SO5.5 Identify the different ingredients of paints and varnish for engineering	LE5.1 Determine the moisture content, ash and volatile matter in given coal sample using proximate analysis. LE5.2 Determine the calorific value of the given solid fuel using Bomb calorimeter. LE5.3 Determine the effect of temperature on viscosity for given lubricating oil using Redwood viscometer –I LE5.4 Determine the flash and fire point of given lubricating oil using Cleavland open cup apparatus. LE5.5 Determine the cloud and pore point of the given lubricant. LE5.6 Separate the various	**Unit-5.0 (A) Fuel and Combustion** 5.1 Fuel: Calorific value and ignition temperature, classification. 5.2 Solid fuels: Coal, Classification and composition , 5.2.1 Proximate analysis, 5.2.2 Ultimate analysis, 5.2.3 Bomb calorimeter. 5.2 4 Carbonization of coke by Otto Hofmann's oven. 5.3 Liquid fuels: 5.3.1 Fractional distillation of crude petroleum, 5.3.2 Boiling range, 5.3.3 Composition and properties. 5.3.4 Knocking, 5.3.5 Cracking,	• Classification of fuel. • Solid fuel classification. • Octane number and Cetane number.

Session Outcomes (SOs)	Laboratory Instruction (P)	Class room Instruction (L)	Self Learning (SL)
applications.	fractions of the given sample of petroleum using fractional distillation.	5.3.6 Octane number and Cetane number. 5.4 Gaseous fuels: 5.4.1 Biogas, LPG, and CNG. 5.4.2 Combustion equation of gaseous fuels, **Unit 5.0 (B) Lubricants, Paints and Varnishes** 5.1 Lubricant- 5.1.1 Types, a. Liquid b. Solid c. Semisolid 5.1.2 Theory of lubrication, 5.1.3 Properties of a good lubricants 5.1.4 Flash and Fire point, 5.1.5 Pour paint and cloud point. 5.1.6 Specification number and viscosity, 5.2 Paints and Varnish 5.2.1 Constituents, 5.2.2 Properties and uses.	

SW-5 Suggested Sessional Work (SW) :

a. Assignments:

i. Prepare chart showing different types of liquid fuels their calorific values and uses.
ii. Prepare a chart differentiating proximate and ultimate analysis of Coal.
iii. Prepare the comparative chart of commercially available lubricants on the basis of mechanism of lubrication.
iv. Prepare the chart displaying applications of different paints and Varnish.

b. Mini Project:

i. Prepare a report on effect of LPG and CNG on environment
ii. Collect the sample of various lubricants and prepare the report about properties and uses.

c. Other Activities (Specify):

i. Seminar on combustion of gaseous fuel.
ii. Visit the paint industry.

I) Suggested Specification Table (For ESE of Classroom Instruction):

Unit Number	Unit Titles	Marks Distribution			Total Marks
		R	U	A	
I	Atomic Structure and Chemical Bonding	6	5	3	14
II	Water Treatment and Polymer	3	4	7	14
III	Electrochemistry, Batteries, Insulator and Electrical Thermocouple	6	4	4	14
IV	Metallurgy, Metal Alloys and Cements	3	5	6	14
V	Fuel and Combustion, Lubricants, Paints Varnish	6	3	5	14
Total		24	21	25	70

Legend: R: Remember, U: Understand, A: Apply and above

J) Suggested Specification Table (For ESE of Laboratory Instruction*):

Laboratory Instruction Number	Short Laboratory Experiment Titles	Assessment of Laboratory Work (Marks)		
		Performance		Viva-Voce
		PRA	PDA	
LE2.1	Complexometric Titration	15	10	5
LE2.2	Alkalinity	15	10	5
LE2.3	Turbidity	15	10	5
LE2.4	TDS & SS	20	05	5
LE2.5	BOD	12	13	5
LE3.1	Conductometric titration	15	10	5
LE3.2	Conductometer	17	08	5
LE3.3	Conductometer	18	07	5
LE3.4	pH meter	16	09	5
LE3.5	Daniel cell	15	10	5
LE4.1	Percentage of Cu	16	09	5
LE4.2	Percentage of Fe	16	09	5
LE5.1	Proximate analysis	15	10	5
LE5.2	Bomb calorimeter	15	10	5
LE5.3	Redwood viscometer-I	16	09	5
LE5.4	Cleaveland open cup	16	09	5
LE5.5	Cloud and pore point	16	09	5
LE5.6	Fractional distillation	15	10	5

* Assessment rubric, process and product check list with rating scale need to be prepared by the course wise teachers for each experiment for conduction and assessment of laboratory experiments /practicals .

Legend : PRA: Process Assessment, PDA : Product Assessment

Note: Only one experiment has to be performed at the end semester examination of 30 Marks as per assessment scheme

K) Suggested Instructional/Implementation Strategies:

1. Improved Lecture
2. Tutorial
3. Case Method
4. Group Discussion
5. Industrial visits
6. Industrial Training

7. Field Trips
8. Portfolio Based Learning
9. Role Play
10. Demonstration
11. ICT Based Teaching Learning (Video Demonstration, CBT, Blog, Face book, Mobile)
12. Brainstorming
13. Others

L) Suggested Learning Resources:

(a) Books :

S. No.	Titles	Author	Publisher	Edition & Year
1	Engineering Chemistry	Agarwal, Shikha	Cambridge university press ; New Delhi,	2015
2	Engineering Chemistry	Dara, S. S. and Dr.S.S.Umare	S.Chand. Publication, New Delhi,	2015
3	Engineering Chemistry	Jain & Jain	Dhanpat Rai and sons; New Delhi	2015
4	Engineering Chemistry	Dr.Vairam, S.	Wiley India Pvt.Ltd., New Delhi\	2013
5	Chemistry for engineers	Agnihotri, Rajesh	Wiley India Pvt.Ltd.	2014

(b) Open source software and website address :

1. www.chemguide.co.uk/atommenu.html (Atomic structure and chemical bonding)
2. www.visionlearning.com (Atomic structure and chemical bonding)
3. www.chem1.com (Atomic structure and chemical bonding)
4. https://www.wastewaterelearning.com/elearning/ (Water Treatment)
5. www.chem1.com/acad/webtext/elchem/ec6.html (Electrochemistry and batteries)
6. www.em-ea.org/guide%20books/book 2/2.1%20fuels%20and%20combustion.pdf (Fuel and Combustion)
7. www.chemcollective.org (Metals, Alloys)
8. www.wqa.org(Water Treatment)

(c) Others:

1. Learning Packages.
2. Lab Manuals.
3. Manufacturers' Manual
4. Users' Guide

M) List of Major Laboratory Equipment and Tools:

S. No.	Name of Equipments	Broad Specifications	Relevant Experiment Number
1	Electronic balance,	scale range of 0.001g to 500g. pan size 100 mm; response time 3-5 sec.; power requirement 90-250 V, 10 watt.	All
2	Nephelometer	Auto-ranging from 20-200 NTU,+/- 2% of reading plus 0.1 NTU, power 220 Volts +/- 10% AC 50 Hz.	LE 2.3
3	Conductometer	Range 0-199.9ms; resolution 0.1ms/0.01ms/0.001ms/0.1µs/0.01µs; accuracy ±0.5% ±2 digits	LE3.2
4	pH meter	Working range 0-14; resolution 0.1/0.01 pH; temperature compensation 0-100^0 C	LE3.4
5	Electric oven	Inner size 18"x18"x18"; temperature range 100 to 250^0 C with the capacity of 40lt.	LE 5.1
6	Muffle furnace,	Temperature up to 900^{0}C, digital temperature controller with an accuracy of +/- 3^{0}C	LE 5.1
7	Bomb calorimeter	Measurement unit J/kg, cal/gm, BTU/lb; temp. resolution 0.0001^{0}C or better; combustion bomb-halogen and acid resistant stabilized stainless steel; resolution 0.001kcal/gm; measurement range up to 40,000 J/gm	LE 5.2
8	Redwood viscometer-1	Suitable to operate at 220 volts AC mains with tap ; stainless steel jet; cup cover; thermometer ;electronic digital indicator ; controller etc	LE5.3
9	Cleavland open cup apparatus	Energy regulator-to regulate the rate of rise in temperature; 220V; 50 Hz; single phase; AC supply	LE5.4
10	Cloud and pore point apparatus	Energy regulator ,to regulate the rate of rise in temperature,200V,50Hz, single phase,AC supply etc.	LE 5.5
11	Fractional distillation assembly	Capacity 1.5 lt.	LE 5.6

N) Mapping of POs & PSOs with COs:

Course Outcomes (COs)	Programme Outcomes (POs)										Programme Specific Outcomes (PSOs)	
	PO-1 Basic knowledge	PO-2 Discipline knowledge	PO-3 Experiments and practice	PO-4 Engineering Tools	PO-5 The engineer and society	PO-6 Environment and sustainability	PO-7 Ethics	PO-8 Individual and team work	PO-9 Communication	PO-10 Life-long learning	PSO-1	PSO-2
CO-1 Solve various engineering problems applying the basic knowledge of atomic structure and chemical bonding.	3	1	1	-	-	-	1	2	2	1	-	1
CO-2 Use relevant water treatment method to solve industrial problems.	3	1	3	3	2	2	1	3	1	2	1	1
CO-3 Solve the engineering problems using concept of Electrochemistry	3	1	2	2	1	2	-	3	2	2	-	1
CO-4 Solve the engineering problems by applying the knowledge of metallurgical process and Metals Alloys	3	1	3	3	-	2	-	3	1	2	1	1
CO-5 Use relevant fuel and lubricants for industrial applications.	3	1	3	2	1	1	-	2	1	2	1	1

Legend: 1 – Low, 2 – Medium, 3 – High

O) Course Curriculum Map:

POs & PSOs No.	COs No. & Titles	SOs No.	Laboratory Instruction (P)	Classroom Instruction (L)	Self Learning (SL)
PO-1,2,3,7,8,9,10 PSO-2	CO-1 Solve various engineering problems applying the basic knowledge of atomic structure and chemical bonding.	SO1.1 SO1.2 SO1.3		Unit-1.0 Units , Atomic Structure and Chemical Bonding 1.1 , 1.2	As mentioned in relevant pages
PO-1,2,3,4,5,6, 7,8,9,10 PSO-1,2	CO-2 Use relevant water treatment method to solve industrial problems.	SO2.1 SO2.2 SO2.3	LE2.1 LE2.2 LE2.3 LE2.4 LE2.5	Unit-2.0 (A) Water Treatment 2.1, 2.2, 2.3, 2.4, 2.5, 2.6 Unit-2.0 (B) Polymer 2.1, 2.2, 2.3, 2.4	
PO-1,2,3,4,5,6, 8,9,10 PSO-2	CO-3 Solve the engineering problems using concept of Electrochemistry	SO3.1 SO3.2 SO3.3 SO3.4	LE3.1 LE3.2 LE3.3 LE3.4 LE3.5	Unit-3.0 (A) Electrochemistry and batteries 3.1, 3.2, 3.3 Unit-3.0 (B) Electrical insulator and thermocouple alloys 3.1, 3.2	
PO-1,2,3,4,6, 8,9,10 PSO-1,2	CO-4 Solve the engineering problems by applying the knowledge of metallurgical process and Metals Alloys.	SO4.1 SO4.2 SO4.3	LE4.1 LE4.2	Unit-4.0 (A) Metallurgy 4.1, 4.2 Unit-4.0 (B) Metal alloys 4.1, 4.2, 4.3 Unit-4.0 (C) Cement 4.1	
PO-1,2,3,4,5, 6,8,9,10 PSO-1,2	CO-5 Use relevant fuel and lubricants for industrial applications.	SO5.1 SO5.2 SO5.3 SO5.4 SO5.5	LE5.1 LE5.2 LE5.3 LE5.4 LE5.5 LE5.6	Unit-5.0 (A) Fuel and Combustion 5.1, 5.2 , 5.3, 5.4 Unit-5.0 (B) Lubricants paints and varnishes 5.1, 5.2	

Time Table

Issue Date: **Applicable From:**

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Time Table

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Issue Date: **Applicable From:**

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Saturday							

10

Book Plan

S. No.	Book Title	Author	Publication & Text / Ref.
1.	Applied Chemistry	S. B. Saxena	Deepak Prakashan
2.	अनुप्रयुक्त रसायन	S. B. Saxena	Deepak Prakashan
3.	Applied Chemistry	Neetu Singh	Sun's India
4.	रसायन विज्ञान	डॉ. परुँल जैन अवनी सोनी	Satya Prakashan
5.			
6.			
7.			

Unit wise Teaching Plan

Unit No.	Unit Name	Sequence in which units are to be covered	Total Lectures Required
1.	Atomic Structure Chemical Bonding	1	14
2.	[A] Water Treatment [B] Polymer	2	13
3.	[A] Electrochemistry & Battery [B] Electrical Insulator Thermocouple Alloy	3	13
4.	[A] Metal Alloy [B] Metallurgy [C] Cement	4	12
5.	[A] Fuel & Combustion [B] Lubricant, Paints and Varnish	5	10
Total			**62**

Detailed Teaching Plan

Lecture No.	Unit No.	Topic to be covered	Books & Page Nos.	Notes Page Nos.	Slide Nos.	A/V Resource
L-01	1	Electronic Structure of atom				
L-02	1	Discovery of electron, proton and neutron				
L-03	1	Rutherford's model, Bohr-Burry scheme of distribution of electron		15-16		
L-04	1	Heisenberg Uncertainty Principle		17-20		
L-05	1	Quantum Number, Sub-Energy level				
L-06	1	Distribution of electron in sub-shell and concept of electronic configuration				
L-07	1	Aufbau Principle, Paul's Exclusion Principle				
L-08	1	Hund's rule of maximum multiplicity				
L-09	1	Theory of Chemical Bonding				
L-10	1	Types of Bonding				
L-11	1	Ionic or Electrovalent Bond				
L-12	1	Covalent Bond				
L-13	1	Coordination Bond				
L-14	1	Hydrogen Bonding				

L-15	2	Types of Hardness, BOD & COD				
L-16	2	Determination of hardness using EDTA method				
L-17	2	Hard water, Boiler Problem				
L-18	2	Boiler Corrosion, Caustic Embrittlement				
L-19	2	Priming & Foaming, Scales and Sludges				
L-20	2	Water softening, lime-soda Process				
L-21	2	Hot-lime Soda Process				
L-22	2	Zeolite and Ion-Exchange Process				
L-23	2	Municipal water Treatment Sedimentation & Coagulation				
L-24	2	Filtration, Sterilization Polymer, Types of rubber				
L-25	2	Processing natural rubber, Synthetic rubber				
L-26	2	Properties and application of Buna-S, Thiocol				
L-27	2	Properties of neoprene rubber				
L-28	3	Conductance , nature of solute, solvent, temperature, dilution				
L-29	3	Electrolytic conductance, specific equivalent, Conductance cell				
L-30	3	Hydrogen Electrode				
L-31	3	Calomel Electrode				

L-32	3	Glass Electrode				
L-33	3	Conductometric Titration				
L-34	3	Battery, its types				
L-35	3	Primary Battery				
L-36	3	Secondary Battery				
L-37	3	Classification, example of Electrical insulators				
L-38	3	Thermocouple Alloy Composition & Characteristics				
L-39	3	Platinum /Rhodium				
L-40	3	Tungsten / Rhenium				

L-32	3	Glass Electrode				
L-33	3	Conductometric Titration				
L-34	3	Battery, its types				
L-35	3	Primary Battery				
L-36	3	Secondary Battery				
L-37	3	Classification, example of Electrical insulators				
L-38	3	Thermocouple Alloy Composition & Characteristics				
L-39	3	Platinum /Rhodium				
L-40	3	Tungsten / Rhenium				

Detailed Teaching Plan

Lecture No.	Unit No.	Topic to be covered	Books & Page Nos.	Notes Page Nos.	Slide Nos.	A/V Resource
L-41	4	Metallurgy, Mineral, Ore, Gangue				
L-42	4	Metallurgy Process of Iron				
L-43	4	Metallurgy process of Copper				
L-44	4	Properties of metal, copper, Aluminum				
L-45	4	Properties of Tungsten, Platinum, Nickel				
L-46	4	Ferrous Alloy, Low carbon steel				
L-47	4	Medium Carbon steel				
L-48	4	High Carbon Steel				
L-49	4	Non-Ferrous Alloy, Brass, Bronze				
L-50	4	Duralumin, Tinmann's Solder , Wood Metal				
L-51	4	Portland Cement , Constituent				
L-52	4	Setting and Hardening				
L-53	5	Calorific value, Ignition temperature. Classification of fuel, Solid, liquid and gas				

Detailed Teaching Plan

Lecture No.	Unit No.	Topic to be covered	Books & Page Nos.	Notes Page Nos.	Slide Nos.	A/V Resource
L-54	5	Proximate & Ultimate analysis				
L-55	5	Bomb Calorimeter, Carbonization of Coke by Otto Hofmann Oven				
L-56	5	Fractional Distillation of crude, Petroleum, Boiling range				
L-57	5	Composition, Properties, Knocking, Cracking Octane & Cetane				
L-58	5	Gaseous fuel, LPG, CN G, Biogas, Combustion equation of gaseous fuel				
L-59	5	Lubricant, theory , Properties of good lubricant				
L-60	5	Flash & Fire Point, Pour & Cloud Point				
L-61	5	Specification Number and Viscosity				
L-62	5	Paint & Varnish Constituent properties and uses				

Signature of Lecturer

Signature of HOD

Follow-up Register

Actual Lecture No.	Plan (DTP) Lecture	Date of Lecture	Topic covered	Topic Left	Teaching Methodology	Reasons for Variation if Any	Action plan to Complete it	Sign of HOD	Remark
L-1	L-1	1/10/24	Electronic structure of atom	Nil	Traditional				
L-2	L-2	3/10/24	Discovery of electron, proton and neutron	"	"				
L-3	L-3	8/10/24	Rutherford's model, Bohr-Bury scheme of distribution of electrons	"	"				
L-4	L-4	9/10/24	Heisenberg Uncertainty principle	"	"				
L-5	L-5	15/10/24	Quantum number sub-shell Energy	"	"				
L-6	L-6	16/10/24	Distribution of electrons in sub-shell	"	"			[signature]	
L-7	L-7	17/10/24	Aufbau principle Paul's Exclusion Principle	"	"				
L-8	L-8	17/10/24	Hund's rule of maximum multiplicity	"	"				
L-9	L-9	21/10/24	~~Theory~~ of chemical Bonding	"	"				
L-10	L-10	22/10/24	Types of Bonding	"	"				
L-11	L-11	22/10/24	Ionic or ~~Covalent~~ Electrovalent Bond	"	"				
L-12	L-12	23/10/24	Covalent Bond	"	"				
L-13	L-13	24/10/24	Coordinate Bond	"	"				

Follow-up Register

Actual Lecture No.	Plan (DTP) Lecture	Date of Lecture	Topic covered	Topic Left	Teaching Methodology	Reasons for Variation if Any	Action plan to Complete it	Sign of HOD	Remark
L-14	L-14	24/10/24	Hydrogen Bonding	Nil	Traditional				
L-15	L-15	04/11/24	Types of hardness BOD and COD	"	"				
L-16	L-16	18/11/24	Determination of hardness using EDTA method	"	"				
L-17	L-17	18/11/24	Hard Water Boiler problem	"	"				
L-18	L-18	19/11/24	Boiler corrosion Caustic Embrittlement	"	"				
L-19	L-19	19/11/24	Priming, Foaming Scales and sludges	"	"				
L-20	L-20	20/11/24	Water softening lime-soda process	"	"				
L-21	L-21	20/11/24	Hot-lime-soda process	"	"				
L-22	L-22	21/11/24	Zeolite and Ion-exchange process	"	"				
L-23	L-23	21/11/24	Municipal water treatment, sedimentation.	"	"				
L-24	L-24	26/11/24	Coagulation, Filteration Types of polymer	"	"				
L-25	L-25	26/11/24	Processing natural rubber, Synthetic rubber	"	"				
L-26	L-26	27/11/24	Properties and application of Buna-S, Thiol	"	"				

Follow-up Register

Actual Lecture No.	Plan (DTP) Lecture	Date of Lecture	Topic covered	Topic Left	Teaching Methodology	Reasons for Variation if Any	Action plan to Complete it	Sign of HOD	Remark
L-27	L-27	27/11/24	Properties of neoprene rubber	Nil	Traditional				
L-28	L-28	28/11/24	conductance, nature of solute, solvent temp.	"	"				
L-29	L-29	3/12/24	Electrolytic Conductance specific conductance cell	"	"				
L-30	L-30	4/12/24	Hydrogen electrode	"	"				
L-31	L-31	5/12/24	Calomel electrode	"	"				
L-32	L-32	10/12/24	Glass electrode	"	"				
L-33	L-33	11/12/24	conductometric titration	"	"				
L-34	L-34	12/12/24	Battery its types	"	"				
L-35	L-35	12/12/24	Primary Battery	"	"				
L-36	L-36	13/12/24	Secondary Battery	"	"				
L-37	L-37	14/12/24	Classification Example of electric insulator	"	"				
L-38	L-38	17/12/24	Thermocouple Alloy composition -	"	"				
L-39	L-39	17/12/24	Platinum / Rhodium	"	"				

Follow-up Register

Actual Lecture No.	Plan (DTP) Lecture	Date of Lecture	Topic covered	Topic Left	Teaching Methodology	Reasons for Variation if Any	Action plan to Complete it	Sign of HOD	Remark
L-40	L-40	18/12/24	Tungesten / Rhenium	Nil	Traditional				
L-41	L-41	19/12/24	Metallurgy, Mineral ore flux, gangue	"	"				
L-42	L-42	20/12/24	Metallurgy process of Iron	"	"				
L-43	L-43	20/12/24	Metallurgy process of copper	"	"				
L-44	L-44	23/12/24	Properties of metal copper, Aluminum	"	"				
L-45	L-45	23/12/24	Tungesten, Nickel platinum,	"	"				
L-46	L-46	24/12/24	Ferrous alloy Low carbon steel	"	"				
L-47	L-47	24/12/24	High carbon steel	"	"				
L-48	L-48	26/12/24	Non-ferrous alloy Brass Bronze	"	"				
L-49	L-49	26/12/24	Duralumin, Tinamann's solder, Wood Metal	"	"				
L-50	L-50	27/12/24	Portland Cement Constituent	"	"				
L-51	L-51	30/12/24	setting and hardening	"	"				
L-52	L-52	30/12/24	Calorific Value Ignition temp. classification of fuel	"	"				

Follow-up Register

Actual Lecture No.	Plan (DTP) Lecture	Date of Lecture	Topic covered	Topic Left	Teaching Methodology	Reasons for Variation if Any	Action plan to Complete it	Sign of HOD	Remark
L-53	L-53	3/1/25	Proximate and ultimate analysis	Nil	Tradition				
L-54	L-54	14 1/25	Bomb Calorimeter Carbonization	"	"				
L-55	L-55	14 1/25	Fractional distillation Boiling range	"	"				
L-56	L-56	15 1/25	Composition, properties Knocking, Cracking	"	"				
L-57	L-57	15 1/25	Octane, Cetane, CNG, LPG, Biogas	"	"				
L-58	L-58	17 1/25	Gaseous fuel Combustion equation of gaseous	"	"				
L-59	L-59	20 1/25	Lubricant: Theory, Properties of good lubricant	"	"			Ans	
L-60	L-60	20 1/25	Flash & Fire Point Pour & cloud point	"	"				
L-61	L-61	21 1/25	Specification number Viscosity	"	"				
L-62	L-62	21 1/25	Paint & Varnish Constituent properties and use	"	"				
L-63	L-63	27 1/25	Revision	"	"				

Signature of Lecturer

Signature of HOD

Important Dates

Units		Assignments			
Unit	Completion Date	Assignment given On	Due Date of submission	Total No. of Collected Copies	Copies Returned On
1	24/10/24	25/10/24	12/11/24	15	12/11/24
2	27/11/24	27/11/24	5/12/24	30	6/12/24
3	19/12/24	19/12/24	26/12/24	18	27/12/24
4	30/12/24	30/12/24	3/1/25	22	3/1/25
5	21/1/25	21/1/25	27/1/25	28	4/2/25

CLASS TEST/UNIT TEST

S.No.	Held on	Copy shown to students on date	Result displayed on	No. of students present	Pass %
1	12/11/24	16/11/24	17/11/24	37	62%
2	07/1/25	10/1/25	11/1/25	38	68%

Follow-up Register

Actual Lecture No.	Plan (DTP) Lecture	Date of Lecture	Topic covered	Topic Left	Teaching Methodology	Reasons for Variation if Any	Action plan to Complete it	Sign of HOD	Remark
L-64	L-64	27/1/25	Revision & Test	Nil	Traditional				
L-65	L-65	27/1/25	"	"	"				
L-66	L-66	3/2/25	" Periodic test	"	"				
L-67	L-67	3/2/25	"	"	"				
L-68	L-68	3/2/25	"	"	"				
L-69	L-69	4/2/25	"	"	"				
L-70	L-70	4/2/25	"	"	"				
L-71	L-71	6/2/25	"	"	"				
L-72	L-72	6/2/25	"	"	"				
L-73	L-73	8/2/25	"	"	"				
L-74	L-74	8/2/25	"	"	"				

Signature of Lecturer

Signature of HOD

23

Assignment Questions – 1

Q.No	Questions
1	1. Explain the following (a) Aufbau Principle (b) Quantum Number (c) Heisenberg Uncertainty Principle 2. Describe Rutherford's nuclear model with suitable diagram. Also mention its limitation. 3. What is ionic bond? Write down the difference between ionic and covalent bond. 4. What is Hydrogen Bonding? Mention its types with example.

25

Assignment Questions – 2

Q.No	Questions
	1. Define hardness of water? Difference between temporary & permanent hardness. 2. Describe the lime -soda process of softening with diagram. 3. Explain the following (a) scales and sludge (b) caustic embrittlement (c) Boiler corrosion 4. What is polymer? Mention its types with examples.

Assignment Questions – 3

Q.No	Questions
	1. Define the terms (a) equivalent conductance (b) cell constant (c) Molar conductance 2. Explain the following with suitable diagram. (a) Hydrogen Electrode (b) Calomel Electrode 3. What is electrical insulator? Give few examples and also write their applications. 4. Define Battery. Write down the working Principle of Primary battery with diagram.

Assignment Questions – 4

Q.No	Questions
	1. Define the terms (a) Mineral (b) Ore (c) Gangue (d) Flux 2. Describe the smelting process of roasted iron ore with neat and labeled diagram. 3. What is alloy? Write down the composition, properties and used of following alloy. (a) Brass (b) Bronze (c) Duralumin (d) Solder 4. What is bessemerization process? Explain with diagram.

Assignment Questions – 5

Q.No	Questions
	1. Define Fuel. Write down its classification with example. 2. Write down the characteristic of good fuel. 3. Explain the following (a) Knocking (b) Cracking (c) Octane Number (d) Cetane Number 4. What is calorific value? Determine the calorific value of fuel with bomb calorimeter.

NMDC DAV POLYTECHNIC DANTEWADA
ATTENDANCE RECORD

Branch: Mechanical **Sem: 1** **Month: Oct** **Session: July-Dec 2024** **Subject:**

SN	Student Name	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total Att.(4) Present	% Age
	No of classes Taken	1		1					1							1	1	2				1	2	1	1									
31	MUKESH KUMAR	P		P					P							P	P	P				P	P	.	.								10	
32	MULCHAND	P		.					.							.	.	P				P	P	P	P								6	
33	NAGRAJ NAG	P		P					.							P	P	P				P	P	.	P								8	
34	NAINA	.		.					.							.	P	.				P	P	P	P								5	
35	PAVAN BAGH	.		.					.							P	.	P				P	P	.	.								1	
36	PAWAN SINGH THAKUR	P		P					.							.	.	.				P	P	.	.								8	
37	PAWANJJA VINAYAK KANHEKAR	P		.					.							.	.	.				P	P	P	P								2	
38	PAYAL	.		.					.							.	.	.				P	P	P	P								5	
39	PRIYANSHU KUMAR SHARMA	.		P					P							P	P	P				P	P	P	P								4	
40	RAKESH KUMAR MANDAVI	P		P					.							P	P	P				P	P	P	P								9	
41	RAM SINGH NETAM	P		.					.							P	P	P				P	P	P	.								7	
42	RAMESH KUMAR MOURYA	P		P					P							P	P	P				P	P	P	P								11	
43	SAGAR BHUARYA	P		P					.							P	P	P				P	P	.	.								7	
44	SAHIL DURGA	P		P					P							P	P	P				P	P	.	.								9	
45	SAIYYED MOHAMMAD EMAD	P		P					P							P	P	P				P	P	P	P								4	
46	SAKALI VIJAY KUMAR	P		P					P							P	P	P				P	P	P	P								14	
47	SAKSHI KASHYAP	P		P					P							P	P	P				P	P	P	P								13	
48	SANGEETA	P		.					.							.	P	P				P	P	P	P								10	
49	SANGEETA NAG	P		P					.							P	P	P				P	P	P	P								10	
50	SANTOSH NAG	P		P					P	P						P	P	P				P	P	P	P								13	
51	SHANU	P		P					P							P	P	P				P	P	P	P								13	
52	SONI KASHYAP	P		P					.							P	.	P				P	P	P	P								11	
53	SRISTI SRIVASTAVA	P		P					.							P	P	P				P	P	P	P								9	
54	SULEMAAN	P		P					.							P	P	P				P	P	P	P								7	
55	SURESH KUMAR SIDAR	P		P					P							P	.	P				P	P	P	P								14	
56	SUSHILA KAVASI	P		P					P							.	.	P				P	P	.	P								2	
57	SUYASH KUMAR	P		.					P							P	.	P				P	P	P	P								5	
58	THOUHEED AHMAD	.		P					P							P	P	P				P	P	P	P								7	
59	VEDANT LONARE	P		.					P							P	P	P				P	P	P	P								11	
60	VIRENDRA MANDAVI	P		.					P																									
	Total No. of Students Present																																	

MAHATMA GANDHI JAYANTI — SUNDAY — MAHANAVAMI — DUSSHARA — SUNDAY — SUNDAY — SUNDAY

Branch: Mechanical Sem: 1

NMDC DAV POLYTECHNIC DANTEWADA
ATTENDANCE RECORD

Month: Oct Session: July-Dec 2024 Subject:

SN	Student Name	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total Att.(No) Present	% Age
	No of classes Taken																																	
1	AAYUSH KUMAR NISHAD	P		P					P							P	P	P				P	P	P	P								18	14
2	ABHINANDAN THAKUR	P		P					.	P						P	P	P				P	P	P	P								18	13
3	AKSHAT SHRIVASTAV	P		P					.	P						P	P	P				P	P	P	P								9	
4	AMIT SURYA	P		P					P							P	P	P				P	P	P	P								2	
5	AMOSH EKKA	P		P					P							P	P	P				P	P	P	P								5	
6	ANIL	P		P					.							P	P	P				P	P	P	P								9	
7	ANIL KUMAR	P		P					P							P	P	P				P	P	P	P								5	
8	ANSHUMAN MISHRA	P		P					P							P	P	P				P	P	P	P								4	
9	ARCHANA YADAV	P		P					.							P	P	P				P	P	P	P								9	
10	ASHISH PAL	P		P					.							P	P	P				P	P	P	P								8	
11	AVINASH MOURYA	P		P					.							P	P	P				P	P	P	P								5	
12	BALRAM MOURYA	P		P					P							P	P	P				P	P	P	P								7	
13	BHUMIKA SAHU	P		P					P							P	P	P				P	P	P	P								8	
14	BHUNESHWAR POYAM	.		.					.							.	.	.				.	.	.	.								0	
15	CHINU KASHYAP	.		.					.							.	.	.				.	.	.	.								0	
16	CHIRAG SINHA	P		.					.							P	P	P				P	P	P	P								9	
17	DEEPA MALAKAR	P		.					.							P	P	P				P	P	P	P								9	
18	GOURAV SONI	.		.					P							.	.	.				.	.	.	.								3	
19	HEMANT KUMAR MANIKPURI	.		.					.							.	.	.				.	.	.	.								6	
20	HEMROSHAN	.		.					.							.	.	.				.	.	.	.								0	
21	KAMLESH KORRAM	P		P					.							P	P	P				P	P	P	P								5	
22	KARAN	.		P					.							.	P	.				.	.	.	.								0	
23	KARAN BAGHEL	P		P					.							P	P	P				P	P	P	P								7	
24	KARAN HEMLA	.		P					.							.	P	.				.	.	.	.								0	
25	KASHI DURGA	P		P					.							P	P	P				P	P	P	P								7	
26	MAHENDRA KUMAR	P		P					P							P	P	P				P	P	P	P								6	
27	MAITU RAM	.		P					.							.	P	.				.	.	.	.								1	
28	MAYANK DHARGE	.		P					.							.	P	.				.	.	.	.								0	
29	MOHAN	.		P					.							.	P	.				.	.	.	.								1	
30	MRINAL PAL	.		P					.							.	P	.				.	.	.	.								1	

MAHATMA GANDHI JAYANTI SUNDAY MAHANAVAMI DUSSHARA SUNDAY SUNDAY SUNDAY

Signature of Faculty

(33)

NMDC DAV POLYTECHNIC DANTEWADA
ATTENDANCE RECORD

Branch: Mechanical Sem: 1 Month: Nov Session: July-Dec 2024 Subject:

SN	Student Name	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total Att.( ) Present	% Age
	No of classes Taken																																	
31	MUKESH KUMAR												P						P	P	P	P					P	P	.				13	
32	MULCHAND												.						.	P	P	P					.	.	.				0	
33	NAGRAJ NAG												P						.	.	.	.					P	.	.				9	
34	NAINA												.						.	.	.	.					.	.	.				0	
35	PAVAN BAGH												.						P	P	P	P					P	P	P				14	
36	PAWAN SINGH THAKUR												P						.	.	.	.					.	.	.				3	
37	PAWANJJA VINAYAK KANHEKAR												P						P	P	P	P					P	P	P				14	
38	PAYAL												P						P	P	P	P					P	P	.				12	
39	PRIYANSHU KUMAR SHARMA												P						P	P	P	P					P	P	.				10	
40	RAKESH KUMAR MANDAVI												P						P	P	P	P					P	P	P				12	
41	RAM SINGH NETAM												P						P	P	P	P					P	P	P				12	
42	RAMESH KUMAR MOURYA												P						P	P	P	P					P	P	P				12	
43	SAGAR BHUARYA												P						P	P	P	P					P	P	.				10	
44	SAHIL DURGA												P						P	P	P	P					P	P	P				12	
45	SAIYYED MOHAMMAD EMAD												P						P	P	P	P					P	P	P				12	
46	SAKALI VIJAY KUMAR												P						P	P	P	P					P	P	.				10	
47	SAKSHI KASHYAP												P						P	P	P	P					P	P	P				12	
48	SANGEETA												P						P	P	P	P					P	P	P				12	
49	SANGEETA NAG												P						P	P	P	P					P	P	P				12	
50	SANTOSH NAG												P						P	P	P	P					P	P	P				12	
51	SHANU												P						P	P	P	P					P	P	P				12	
52	SONI KASHYAP												P						P	P	P	P					P	P	P				12	
53	SRISTI SRIVASTAVA												P						P	P	P	P					P	P	P				12	
54	SULEMAAN												P						P	P	P	P					P	P	P				12	
55	SURESH KUMAR SIDAR												P						P	P	P	P					P	P	P				12	
56	SUSHILA KAVASI												P						P	P	P	P					P	P	P				12	
57	SUYASH KUMAR												P						P	P	P	P					P	P	P				12	
58	THOUHEED AHMAD												P						P	P	P	P					P	P	P				12	

GOWARDHAN PUJA BHAI DOOJ SUNDAY CHHATH PUJA SUNDAY GURUNANAK JAYANTI SUNDAY SUNDAY

		01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total Att. (Present)	% Age
2	ABHINANDAN THAKUR																																	
3	AKSHAT SHRIVASTAV																																	
4	AMIT SURYA																																	
5	AMOSH EKKA																																	
6	ANIL																																	
7	ANIL KUMAR																																	
8	ANSHUMAN MISHRA																																	
9	ARCHANA YADAV																																	
10	ASHISH PAL																																	
11	AVINASH MOURYA																																	
12	BALRAM MOURYA																																	
13	BHUMIKA SAHU																																	
14	BHUNESHWAR POYAM																																	
15	CHINU KASHYAP																																	
16	CHIRAG SINHA																																	
17	DEEPA MALAKAR																																	
18	GOURAV SONI																																	
19	HEMANT KUMAR MANIKPURI																																	
20	HEMROSHAN																																	
21	KAMLESH KORRAM																																	
22	KARAN																																	
23	KARAN BAGHEL																																	
24	KARAN HEMLA																																	
25	KASHI DURGA																																	
26	MAHENDRA KUMAR																																	
27	MAITU RAM																																	
28	MAYANK DHARGE																																	
29	MOHAN																																	
30	MRINAL PAL																																	

GOWARDHAN PUJA
BHAI DOOJ
SUNDAY
CHHATH PUJA
SUNDAY
GURUNANAK JAYANTI
SUNDAY
SUNDAY

Signature of Faculty

(32)

NMDC DAV POLYTECHNIC DANTEWADA

ATTENDANCE RECORD

Branch: Mechanical Sem: 1 Month: Dec Session: July-Dec 2024 Subject:

SN	Student Name	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total Att. (Present)	% Age
	No of classes Taken																																	
31	MUKESH KUMAR																																	
32	MULCHAND																																	
33	NAGRAJ NAG																																	
34	NAINA																																	
35	PAVAN BAGH																																	
36	PAWAN SINGH THAKUR																																	
37	PAWANJJA VINAYAK KANHEKAR																																	
38	PAYAL																																	
39	PRIYANSH KUMAR SHARMA																																	
40	RAKESH KUMAR MANDAVI																																	
41	RAM SINGH NETAM																																	
42	RAMESH KUMAR MOURYA																																	
43	SAGAR BHUARYA																																	
44	SAHIL DURGA																																	
45	SAIYYED MOHAMMAD EMAD																																	
46	SAKALI VIJAY KUMAR																																	
47	SAKSHI KASHYAP																																	
48	SANGEETA																																	
49	SANGEETA NAG																																	
50	SANTOSH NAG																																	
51	SHANU																																	
52	SONI KASHYAP																																	
53	SRISTI SRIVASTAVA																																	
54	SULEMAAN																																	
55	SURESH KUMAR SIDAR																																	
56	SUSHILA KAVASI																																	
57	SUYASH KUMAR																																	
58	THOUHEED AHMAD																																	
59	VEDANT LONARE																																	
60	VIRENDRA MANDAVI																																	
	Total No. of Students Present																																	

SUNDAY
SUNDAY
SUNDAY
GURU GHASIDAS JAYANTI
SUNDAY
X-MAS DAY
SUNDAY

Signature of Faculty

Session: July-Dec 2024 Subject:

SN	Student Name	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total Att. Present	% Age
1	AAYUSH KUMAR NISHAD			P	P	P					P	P	P				P	P		P	P				P		P	P			P			20
2	ABHINANDAN THAKUR			P	P	P					P	P	P	P			P	P		P	P				P		P	P			P			24
3	AKSHAT SHRIVASTAV			P	P	P					P	P	P	P			P	P		P	P				P		P	P			P			22
4	AMIT SURYA			P	P	P					P	P	P	P			P	P		P	P				P		P	P			P			22
5	AMOSH EKKA										P																							2
6	ANIL				P																													2
7	ANIL KUMAR			P	P	P					P	P	P	P			P	P		P	P				P		P	P			P			24
8	ANSHUMAN MISHRA			P	P	P					P	P	P	P			P	P		P	P				P		P	P			P			24
9	ARCHANA YADAV																																	18
10	ASHISH PAL				P	P																												0
11	AVINASH MOURYA			P	P	P					P	P	P	P			P	P		P	P				P		P	P			P			24
12	BALRAM MOURYA			P	P	P					P	P	P	P			P	P		P	P				P		P	P			P			24
13	BHUMIKA SAHU			P	P	P					P	P	P	P			P	P		P	P				P		P	P			P			24
14	BHUNESHWAR POYAM																																	0
15	CHINU KASHYAP																																	0
16	CHIRAG SINHA			P	P						P	P	P	P			P	P		P	P				P		P	P			P			23
17	DEEPA MALAKAR			P	P						P	P	P				P	P		P	P				P		P	P			P			23
18	GOURAV SONI					P							P	P				P			P				P			P			P			16
19	HEMANT KUMAR MANIKPURI				P						P	P	P	P			P	P		P	P				P		P	P			P			22
20	HEMROSHAN																																	0
21	KAMLESH KORRAM																																	0
22	KARAN																																	0
23	KARAN BAGHEL			P	P	P					P	P	P	P			P			P	P				P			P			P			13
24	KARAN HEMLA																																	0
25	KASHI DURGA			P	P						P	P	P	P			P	P		P	P				P			P			P			18
26	MAHENDRA KUMAR			P	P	P					P	P	P	P			P	P		P	P				P		P	P			P			21
27	MAITU RAM																																	0
28	MAYANK DHARGE																																	0
29	MOHAN																																	0
30	MRINAL PAL																																	0

SUNDAY | SUNDAY | SUNDAY | GURU GHASIDAS JAYANTI | SUNDAY | X-MAS DAY | SUNDAY

Signature of Faculty

(31)

NMDC DAV POLYTECHNIC DANTEWADA

ATTENDANCE RECORD

Branch: Mechanical Sem: 1 Month: Jan Session: July-Dec 2024 Subject:

SN	Student Name	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total Att. Present	% Age
	No of classes Taken																																	
31	MUKESH KUMAR			P																								P						6
32	MULCHAND			P																		P												1
33	NAGRAJ NAG			P											P	P																		5
34	NAINA																																	
35	PAVAN BAGH																																	
36	PAWAN SINGH THAKUR			·											·	P						P												6
37	PAWANJJA VINAYAK KANHEKAR			·											P	·						·												2
38	PAYAL																																	
39	PRIYANSH KUMAR SHARMA			P											·	P						·												3
40	RAKESH KUMAR MANDAVI			P											·	P						·												4
41	RAM SINGH NETAM			·											·	P						·												2
42	RAMESH KUMAR MOURYA			P											·	·		P				P												5
43	SAGAR BHUARYA			P											·	·		·				·												1
44	SAHIL DURGA			P											P	·		·				P						P						4
45	SAIYYED MOHAMMAD EMAD			P											·	·		·				·												3
46	SAKALI VIJAY KUMAR			P											P	·		·				·												3
47	SAKSHI KASHYAP			P											P	·		·				P						P						7
48	SANGEETA																																	
49	SANGEETA NAG			·											·	·		·				·												3
50	SANTOSH NAG			·											·	·		·				·												0
51	SHANU			·											·	·		·				·												2
52	SONI KASHYAP			·											·	·		·				·												0
53	SRISTI SRIVASTAVA			P											P	·		P				P												4
54	SULEMAAN			P											·	·		P				P												4
55	SURESH KUMAR SIDAR			P											·	P		·				P												7
56	SUSHILA KAVASI																																	
57	SUYASH KUMAR			P											·	·		·				·												1
58	THOUHEED AHMAD			P											·	P		·				P												5
59	VEDANT LONARE			P											·	P		·				P												5
60	VIRENDRA MANDAVI			P											·	P		·				P												5
	Total No. of Students Present																																	

SUNDAY | SUNDAY | CHHER CHHERA | SUNDAY | SUNDAY

Signature of Faculty

NMDC DAV POLYTECHNIC DANTEWADA
ATTENDANCE RECORD

Branch: Mechanical   Sem: 1   Month: Jan   Session: July-Dec 2024   Subject:

SN	Student Name	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Present	% Age
	No of classes Taken		1	1		SUNDAY							SUNDAY	CHHER CHHERA	2	2		1		SUNDAY	2	2					SUNDAY	3					Total Att.(13)	
1	AAYUSH KUMAR NISHAD																																	10
2	ABHINANDAN THAKUR			P																														8
3	AKSHAT SHRIVASTAV			P																														11
4	AMIT SURYA			P																														2
5	AMOSH EKKA			P																														0
6	ANIL															P					P	P						P						9
7	ANIL KUMAR			P											P			P			P	P						P						9
8	ANSHUMAN MISHRA			P																														0
9	ARCHANA YADAV														P																			8
10	ASHISH PAL			P												P																		9
11	AVINASH MOURYA			P														P			P							P						4
12	BALRAM MOURYA			P																														6
13	BHUMIKA SAHU			P												P					P	P												2
14	BHUNESHWAR POYAM															P					P	P												
15	CHINU KASHYAP															P												P						
16	CHIRAG SINHA																				P													6
17	DEEPA MALAKAR			P																	P													10
18	GOURAV SONI			P																														4
19	HEMANT KUMAR MANIKPURI			P											P																			4
20	HEMROSHAN														P	P					P	P												
21	KAMLESH KORRAM																	P																0
22	KARAN															P						P												
23	KARAN BAGHEL																																	1
24	KARAN HEMLA			P																														
25	KASHI DURGA																																	6
26	MAHENDRA KUMAR			P																														11
27	MAITU RAM			P												P																		
28	MAYANK DHARGE															P					P													
29	MOHAN																				P	P						P						
30	MRINAL PAL																																	

Signature of Faculty
5/2/25
(30)

NMDC DAV POLYTECHNIC DANTEWADA
ATTENDANCE RECORD

Branch: Mechanical   Sem: 1   Month: Feb   Session: July-Dec 2024   Subject:

SN	Student Name	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Present	% Age
	No of classes Taken		SUNDAY	3	2	2	2		2	SUNDAY							SUNDAY							SUNDAY			MAHA SHIVRATRI						Total Att.(10)	
31	MUKESH KUMAR																																	
32	MULCHAND																																	
33	NAGRAJ NAG																																	
34	NAINA				P		P																										0	
35	PAVAN BAGH																																0	
36	PAWAN SINGH THAKUR																																4	
37	PAWANJIA VINAYAK KANHEKAR						P		P																									
38	PAYAL																																4	
39	PRIYANSH KUMAR SHARMA				P				P																								0	
40	RAKESH KUMAR MANDAVI						P																										4	
41	RAM SINGH NETAM						P																										2	
42	RAMESH KUMAR MOURYA						P																										2	
43	SAGAR BHUARYA				P																												0	
44	SAHIL DURGA		P		P		P		P																								2	
45	SAIYYED MOHAMMAD EMAD				P																												8	
46	SAKALI VIJAY KUMAR				P		P		P																								2	
47	SAKSHI KASHYAP																																6	
48	SANGEETA																																0	
49	SANGEETA NAG																																0	
50	SANTOSH NAG																																0	
51	SHANU																																0	
52	SONI KASHYAP																																0	
53	SRISTI SRIVASTAVA		P	P	P		P		P																								10	
54	SULEMAAN																																10	
55	SURESH KUMAR SIDAR		P		P		P		P																								8	
56	SUSHILA KAVASI																																	
57	SUYASH KUMAR				P																												2	
58	THOUHEED AHMAD						P																										0	
59	VEDANT LONARE				P		P																										4	
60	VIRENDRA MANDAVI					P																											0	
	Total No. of Students Present																																	

Signature of Faculty

Month: Feb Session: July-Dec 2024 Subject:

SN	Student Name	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total Att.: Present	% Age
	No of classes Taken			2	2	2	2	2	2																									
1	AAYUSH KUMAR NISHAD			.	P		P		P																								6	
2	ABHINANDAN THAKUR			P	P		P		P																								8	
3	AKSHAT SHRIVASTAV			P	P	P	P		P																								10	
4	AMIT SURYA			.	.		P		.																								2	
5	AMOSH EKKA			.	.		.		.																								0	
6	ANIL			P	P		.		.																								4	
7	ANIL KUMAR			P	P	P	P		P																								10	
8	ANSHUMAN MISHRA			.	.		.		.																								0	
9	ARCHANA YADAV			.	.		.		.																								0	
10	ASHISH PAL			P	P		P		.																								6	
11	AVINASH MOURYA			.	.		.		.																								0	
12	BALRAM MOURYA			.	P	P	P		.																								6	
13	BHUMIKA SAHU			.	.		.		.																								0	
14	BHUNESHWAR POYAM																																	
15	CHINU KASHYAP																																	
16	CHIRAG SINHA			.	.		.		.																								0	
17	DEEPA MALAKAR			P	P		P		P																								8	
18	GOURAV SONI			.	P	P	.		.																								2	
19	HEMANT KUMAR MANIKPURI			.	.		.		.																								0	
20	HEMROSHAN																																0	
21	KAMLESH KORRAM			.	.		.		.																								0	
22	KARAN																																	
23	KARAN BAGHEL			.	.		.		.																								0	
24	KARAN HEMLA																																2	
25	KASHI DURGA			.	.		P		.																								8	
26	MAHENDRA KUMAR			P	P		P		P																									
27	MAITU RAM																																	
28	MAYANK DHARGE																																	
29	MOHAN																																0	
30	MRINAL PAL			.	.		.		.																									

SUNDAY SUNDAY SUNDAY SUNDAY MAHA SHIVRATRI

Signature of Faculty

29

Branch: Mechanical Session: July-Dec 2024

Subject : .....

Name of Teacher :.....

S. No.	Name	Month / Out of / Roll No	Attendance Oct	Nov	Dec	Jan	Feb	Mar	Total	Periodic Test 1	2	3	4	5	Total	Assignment 1	2	3	4	5	Total	Remark
1	AAYUSH KUMAR NISHAD		14	11	20	10	6			8		4	8			✓	✓	✓	✓			✓ 46
2	ABHINANDAN THAKUR		13	10	24	8	8			9		18	18			✓	✓	✓	✓	✓		✓
3	AKSHAT SHRIVASTAV		9	12	22	11	10			6		2	6			✓	✓	✗	✗	✓		40
4	AMIT SURYA		2	2	2	2	2					0	A			✗	✗	✗	✗	✓		
5	AMOSH EKKA		5	2	3	0	0					A	A			✗	✗	✓	✓	✗		.
6	ANIL		9	14	24	5	4			8		13	13			✓	✓	✓	✓	✓		✓ 46
7	ANIL KUMAR		5	9	18	9	10					9	10			✓	✓	✓	✓	✓		✓ 46
8	ANSHUMAN MISHRA		4	1	0	0	0					A	A			✗	✗	✗	✓	✗		
9	ARCHANA YADAV		9	14	17	9	0					10	18	11		✓	✓	✓	✓	✓		38
10	ASHISH PAL		8	9	23	8	6					18	10	16		✓	✓	✓	✓	✓		40
11	AVINASH MOURYA		5	9	16	4	0						8	15		✗	✗	✓	✓	✗		
12	BALRAM MOURYA		7	9	20	6	6					0	A	2		✗	✓	✓	✓	✗		40
13	BHUMIKA SAHU		8	10	10	2	0					6	7	A		✗	✗	✓	✓	✗		49
14	BHUNESHWAR POYAM		0	0	0	0	0						A	14		✓	✓	✓	✗	✗		
15	CHINU KASHYAP		0	0	0	0	0						A	8		✗	✗	✗	✗	✗		
16	CHIRAG SINHA		9	14	16	6	0			10			8	18		✓	✓	✓	✓	✓		48
17	DEEPA MALAKAR		9	14	22	10	8			7			3	15		✓	✓	✓	✓	✓		48
18	GOURAV SONI		3	0	8	4	4			8			A	19		✓	✓	✓	✓	✓		49
19	HEMANT KUMAR MANIKPURI		6	9	16	4	0						8	12		✓	✗	✓	✓	✗		45
20	HEMROSHAN		0	0	0	0	0						A	A		✗	✗	✗	✗	✗		
	Course Covered %		20%	20%	25	25	10%															
	Teacher's Signature																					

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Semester : 1

Subject : .....

Name of Teacher : .....

Student's Progress Report [Theory Subject]

Branch: Mechanical

Session: July-

Signature of Faculty

S. No.	Name	Month	Attendance							Periodic Test						Assignment						
			Oct	Nov	Dec	Jan	Feb	Mar	Total	1	2	3	4	5	Total	1	2	3	4	5	Total	
		Out of																				
		Roll No																				
21	KAMLESH KORRAM		5	0	0	0	0									A	X	U	U	U		
22	KARAN		0	1	0	0	0					0	A			U	/	X	X	X		
23	KARAN BAGHEL		7	0	13	1	0					A	A			U	U	U	X	X		
24	KARAN HEMLA		0	12	0	0	0			3		A	3			U	X	X	U	U		
25	KASHI DURGA		7	13	18	6	2					A	A			U	U	U	X	X		
26	MAHENDRA KUMAR		6	0	21	11	8					1	7			U	U	X	X	X		38
27	MAITU RAM		4	0	6	0	0			9		6	9			U	U	X	U	U		42
28	MAYANK DHARGE		1	0	0	0	0					A				X	X	X	X	X		
29	MOHAN		0	0	0	0	0					A	A			X	X	X	X	X		
30	MRINAL PAL		1	0	0	0	0					A	A			X	X	X	X	X		
31	MUKESH KUMAR		10	13	20	6	0					A	A			X	X	X	X	X		
32	MULCHAND		6	0	0	1	0			5		9	A			U	U	X	U	U		42
33	NAGRAJ NAG		8	9	16	5	4			5		A	A			X	X	U	U	X		
34	NAINA		5	0	0	0	0			5		1	1			U	X	X	U	U		
35	PAVAN BAGH		1	0	0	0	0					A	A			U	U	U	U	U		
36	PAWAN SINGH THAKUR		8	14	22	6	4					A	A			X	X	X	X	X		
37	PAWANJJA VINAYAK KANHEKAR		2	3	4	2	0			10		3	1			U	U	U	U	U		42
38	PAYAL		5	0	18	0	0					A	A			X	X	X	X	U		
39	PRIYANSHU KUMAR SHARMA		4	14	12	3	4					A	7			U	U	X	X	U		
40	RAKESH KUMAR MANDAVI		9	12	6	4	2					3	7			A	X	X	U	U		
	Course Covered %		20%	20	25	15	00			6		A	A			X	X	X	X	X		
	Teacher's Signature																					

Signature of Lecturer

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Student's Progress Report [Theory Subject]

Semester : 1 **Branch: Mechanical** **Session: July-Dec 2024**

Subject : .....

Name of Teacher :.....

S. No.	Name	Month / Out of / Roll No	Attendance							Periodic Test						Assignment						Remark
			Oct	Nov	Dec	Jan	Feb	Mar	Total	1	2	3	4	5	Total	1	2	3	4	5	Total	
41	RAM SINGH NETAM		7	10	17	2	2			0		A	A			✓	✓	✓	✓	✓		
42	RAMESH KUMAR MOURYA		11	21	10	6	6			3		7	4			✗	✗	✗	✓	✓		
43	SAGAR BHUARYA		7	12	12	1	2			6		5	10			✓	✓	✓	✗	✗		40
44	SAHIL DURGA		9	13	14	8	8			9		7	12			✓	✓	✓	✓	✓		46
45	SAIYYED MOHAMMAD EMAD		4	5	16	3	2					7	8			✗	✗	✗	✗	✗		
46	SAKALI VIJAY KUMAR		14	9	19	3	6			9		14	16			✓	✗	✗	✓	✓		40
47	SAKSHI KASHYAP		13	2	0	7	2			10		18	2			✗	✗	✓	✓	✓		42
48	SANGEETA		10	0	18	0	0					A	A			✗	✗	✗	✗	✗		
49	SANGEETA NAG		10	10	21	2	0			7		8	7			✗	✗	✗	✗	✗		
50	SANTOSH NAG		13	14	21	2	0			8		18	13			✗	✗	✗	✗	✓		
51	SHANU		13	12	8	0	0			8		18	11			✓	✓	✓	✓	✓		
52	SONI KASHYAP		11	12	16	2	6			1		0	5			✓	✓	✓	✓	✓		
53	SRISTI SRIVASTAVA		9	10	21	8	6			4		3	8			✓	✓	✓	✓	✓		44
54	SULEMAAN		7	12	20	6	0			7		0	2			✓	✓	✓	✗	✗		36
55	SURESH KUMAR SIDAR		14	9	22	7	10			7		9	0			✗	✗	✓	✓	✓		40
56	SUSHILA KAVASI		2	0	0	0	0					A	A			✗	✗	✗	✗	✗		
57	SUYASH KUMAR		5	8	0	1	8			3		7	0			✗	✗	✓	✓	✗		
58	THOUHEED AHMAD		7	9	14	5	2			7		8	5			✗	✗	✗	✓	✗		
59	VEDANT LONARE		7	7	6	5	4			9		9	6			✓	✓	✓	✓	✓		40
60	VIRENDRA MANDAVI		11	14	17	10	0			7		12	13			✓	✓	✓	✓	✓		48
	Course Covered %		20	20	25	25	00															
	Teacher's Signature																					

Signature of Lecturer

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