

**"PVC" NSSK Govt. Polytechnic Bilaspur at Kalol (H.P.)**

**Lesson Plan (Theory)**

Branch : **Electrical Engg.**

Semester: **6<sup>th</sup>**

Subject : **Building Electrification.**

Session: **Jan. 2026 – Jun 2026**

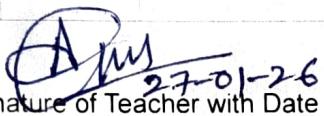
Teacher : **Ashwani Kumar**

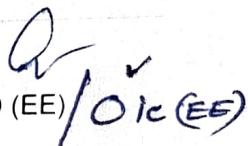
Class Room: **L-5**

Sr. No.	No. of Lectures	Chapter/ Unit Description	Detail of Contents	Reference Resources	Rem.
1	13	<b>Wiring Accessories</b>	Switch – Their types according to construction such as surface switch, flush switch, and pull switch, rotary switch, knife switch, pendant switch, Main-switch (ICDP, ICTP). Holders- Their types such as bayonet cap lamp holder, pendent holder, batten lamp holder, angle holder, bracket holder, tube light holder, screw type Edison and goliath Edison lamp holder, swivel lamp holder. Socket outlets and plugs- two pin, three-pin, multi pin sockets, two-pin and three-pin plug.	R1,R2,R3	
2	13	<b>Electrical Wires and Underground Cable</b>	Conductors: - (Definitions only) wire, cable, bus bar, stranded conductor, cable, armoured cable, flexible cable, solid conductor, PVC wires, CTS wire, LC wire, FR (Fire retardant) wire, Size of wire according to BIS. Tools used for measurement of wire size. Classification of cables (brief introduction) - low tension, high tension, and extra high-tension cables, solid, oil filled and gas filled type. Cable insulation materials (brief introduction) - vulcanized rubber (VIR), polyvinyl chloride (PVC), cross linked polythene (XLPE),impregnated paper.	-do-	
3	16	<b>Wiring Methods and wiring layout</b>	Factors determining the selection of wiring methods. Conduit wiring- Types of conduit, comparison between Metal and PVC conduit, types of conduit wiring (Surface/Concealed). Comparison of various wiring system. Design, working and drawing of following electrical circuits: Simple light and fan circuits, Stair case wiring, Bedroom lighting circuit, Corridor lighting circuit.	-do-	
4	16	<b>Residential Building Electrification</b>	Difference between residential and industrial load. Lighting and power circuits: Light and fan circuit, Power circuit Wiring and circuit Schematic diagrams: multiline and single line representation Load assessment: Selection of size of conductor, Selection of rating of main switch and protective switch gear. Design and drawing, estimation and costing of a residential installation having maximum 5 KW load; Sequence to be followed for preparing estimate; Calculation	-do-	

of length of wire and other materials, labour cost. Calculation of Material required for service connection.

5	13	<b>Illumination in Residential Installation</b>	Definition: Luminous flux, Luminous intensity, Lumen, Illumination or illuminance, Lux, Space-height ratio, utilization factor, depreciation factor, luminous efficiency. Laws of Illumination-Inverse Square Law, Cosine Law. Factors affecting the illumination, Luminous flux of different types of light sources, Lux level required for different places.
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27-01-26  
Signature of Teacher with Date

  
1/01/2016  
Signature of HOD (EE)

#### Teaching Resources:

- R1. Raina, K.B. and S.K.Bhattacharya, Electrical Design Estimating and Costing, New Age International Ltd., New Delhi.
- R2. Allagappan,N. S.Ekambaram, Electrical Estimating and Costing, New Delhi.
- R3. Singh, Surjit, Electrical Estimating and Costing, Dhanpat Rai and Co. New Delhi.

**"PVC" NSSK Govt. Polytechnic Bilaspur at Kalol  
Lecture Planning (Theory)**

Branch : Electrical Engg.

Semester: 6<sup>th</sup>

Subject: Entrepreneurship and Start-ups

Session: Jan,26 - May 26

Teacher : Jyoti Bala

Cass Room : L5

Sr. No.	No. of Lectures	Chapter/ Unit Description	Detail of Contents	Reference Resources	Remarks
1.	1-10	<b>Introduction to Entrepreneurship and Start – Ups</b>	<ul style="list-style-type: none"> <li>Definitions, Traits of an entrepreneur, Intrapreneurship, Motivation.</li> <li>Types of Business Structures, Similarities/differences between entrepreneurs and managers.</li> </ul>	R1,R2,R3, R4.	
2.	11-19	<b>Business Ideas and their implementation</b>	<ul style="list-style-type: none"> <li>Discovering ideas and visualizing the business</li> <li>Activity map</li> <li>Business Plan</li> </ul>	-do-	
3.	20-29	<b>Idea to Start-up</b>	<ul style="list-style-type: none"> <li>Market Analysis – Identifying the target market,</li> <li>Competition evaluation and Strategy Development,</li> <li>Marketing and accounting,</li> <li>Risk analysis</li> </ul>	-do-	
4.	30-39	<b>Management</b>	<ul style="list-style-type: none"> <li>Company's Organization Structure,</li> <li>Recruitment and management of talent.</li> <li>Financial organization and management</li> </ul>	-do-	
5.	40-48	<b>Financing and Protection of Ideas</b>	<ul style="list-style-type: none"> <li>Financing methods available for start-ups in India</li> <li>Communication of Ideas to potential investors – Investor Pitch</li> <li>Patenting and Licenses</li> </ul>	-do-	
6.	49-56	<b>Strategies for entrepreneurs</b>	<ul style="list-style-type: none"> <li>Exit strategies for entrepreneurs, bankruptcy, and succession and harvesting strategy</li> </ul>	-do-	

Signature of Teacher with Date

*Q 23/01/26*

Signature of HOD (EE) / o.T.C

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**"PVC" NSSK Govt. Polytechnic Bilaspur at Kalol**

**Lesson Plan (Theory)**

<b>Branch</b>		<b>Mechanical &amp; Electrical Engineering</b>	<b>Semester: 6th</b>
<b>Subject</b>		<b>Technical Communication</b>	<b>Session: 27<sup>th</sup> Jan 2026 to 27<sup>th</sup> May 2026</b>
<b>Teacher</b>		<b>Ms. Himani Sharma</b>	
<b>Sr. no.</b>	<b>No. Of Lectures</b>	<b>Chapter/Unit Description</b>	<b>Details of contents</b>
1	10	Unit 1: Fundamentals of Technical Communication	1. Language as a tool of Communication 2. Features of Technical Communication 3. Distinction between General and Technical Communication 4. Channels of Communication at workplace: Downward, Upward, Lateral or Horizontal, Diagonal, Grapevine, Consensus 5. Barriers to Communication and overcoming barriers
2	20	Unit 2. Technical Writing	1. Types of Technical writing 2. Drafting skills: Agenda and Minutes of Meetings, Official and Business Correspondence 3. Different formats of Report writing 4. Basics of Grammar: Spotting errors in sentences (Noun, Pronoun, Verb, Adverb, Adjective, Preposition, Conjunction, Article, Modals, Tenses, Punctuation) 5. Resume Writing and Covering letter
3	8	Unit 3. Presentation Skills	1. Concept and Significance of Presentation skills 2. Steps of a Effective Presentation 3. Elements of Effective Presentation skills, including public speaking Clarity of substance; Emotion, Humour, Overcoming Fear, Confident speaking, Audience Analysis and Retention of audience interest 4. How to improve Presentation Skills
4	12	Unit 4. Speaking skills	1. What are Speaking Skills and Characteristics of a Good Speech 2. What is Panel Discussion and its procedure 3. Job Interview Skills: What to do Before, After and During Interview 4. Body Language Examples and their Meanings- Positive and Negative. Body language for interviews 5 Difference between Etiquettes and Manners ,Table Etiquettes , Business Etiquettes, Telephone Etiquettes, Dressing Etiquettes and Workplace Etiquettes, How to get along with opposite Gender 6. What are the elements of Voice Modulation (Quality, Pitch, Rhythm, Volume, Pace; Intonation; Pronunciation; Articulation; stress & accent);Tips for better Voice modulation
 <b>Signature of Teacher</b> <b>Himani Sharma</b>		 <b>HOD/OIC</b>	

**"PVC" NSSK Govt. Polytechnic Bilaspur at Kalol**  
**Lesson Planning (Theory)**  
**Subject: Indian Constitution | Semester: 4th | Branch: Electrical Engineering**  
**Teacher: Parma Nand Sharma | Designation: Sr. Lecturer (Applied Sciences & Humanities)**

**Course Outcomes – Indian Constitution**

**CO1:**

Understand the historical background, philosophy, and salient features of the Indian Constitution, including the Preamble.

**CO2:**

Analyze the Fundamental Rights, Directive Principles of State Policy, and Fundamental Duties in relation to citizens and the State.

**CO3:**

Understand and analyze the structure, powers, and functions of the Union Government, including the Executive, Legislature, and Judiciary.

**CO4:**

Explain and apply knowledge of the State Government and Local Self-Government systems, including Panchayati Raj and Urban Local Bodies.

**CO5:**

Analyze the electoral system, emergency provisions, and constitutional amendment process, with reference to democratic governance in India.

S. No.	Period No.	Topic	Detail of Contents	Instructional Method	COs	Bloom's Level	Additional Study Recommended	Remarks
1	1–2	Unit-1	History & Making of Constitution	Lecture + PPT	CO1	Understand	NCERT	
2	3–4	Unit-1	Meaning, importance, salient features, Preamble	Lecture	CO1	Understand	Bare Constitution	
3	5–6	Unit-1	Fundamental Rights, DPSP, Fundamental Duties	Lecture + Discussion	CO2	Analyze	Case laws	
4	7–8	Unit-1	Revision & Test	Discussion	CO1	Apply	Previous papers	
5	9–10	Unit-2	Union Government structure	Lecture	CO3	Understand	NCERT	

XMP

6	11-12	Unit-2	President & Vice-President	Lecture + PPT	CO3	Understand	Bare Articles	
7	13-14	Unit-2	PM & Council of Ministers	Lecture	CO3	Analyze	Model Qs	
8	15-16	Unit-2	Parliament & Supreme Court	Lecture + Discussion	CO3	Analyze	Judgments	
9	17-18	Unit-3	State Executive	Lecture	CO4	Understand	State manuals	
10	19-20	Unit-3	State Legislature & High Court	Lecture	CO4	Analyze	Previous papers	
11	21-22	Unit-3	Panchayati Raj (73rd)	Lecture + PPT	CO4	Apply	MoPR	
12	23-24	Unit-3	Urban Local Bodies (74th)	Lecture	CO4	Apply	Municipal notes	
13	25-26	Unit-3	Revision & Test	Discussion	CO4	Evaluate	Practice Qs	
14	27-28	Unit-4	Election Commission & process	Lecture + PPT	CO5	Understand	ECI material	
15	29-30	Unit-4	Emergency provisions	Lecture	CO5	Analyze	Case laws	
16	31-32	Unit-4	Amendment & Final Revision	Discussion	CO5	Evaluate	Guess paper	



Parma Nand Sharma  
Sr. Lect. (AS&H)