

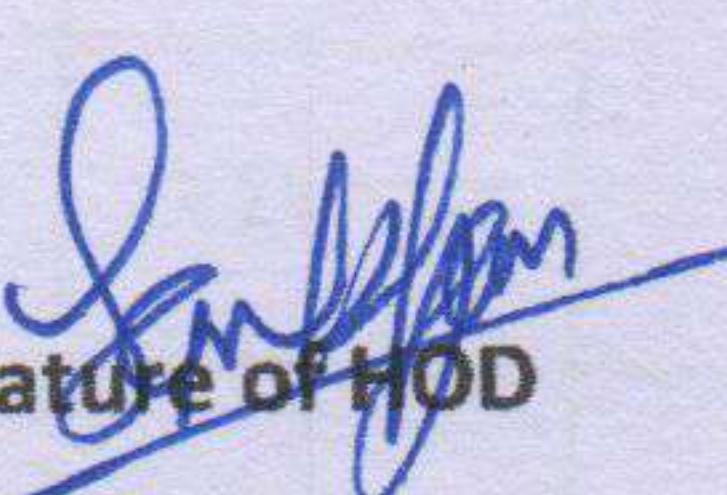
LESSON PLAN

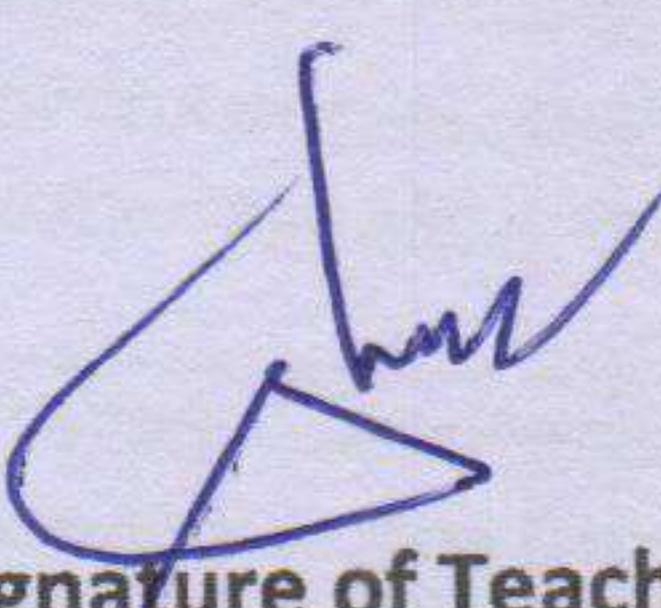
Name of Teacher :- Rishu Dhiman

Subject: Basics of Electric & Hybrid Vehicle

Class: 6th Semester Automobile Engg.

S. No.	Month	Week	Date	Name of Chapter	Contents to be taught	Remarks
1	JANUARY	5th Week	27,28,29	Electric Vehicles	Introduction; History of Hybrid and Electric Vehicles; Social and Environmental importance of Hybrid and Electric Vehicles	
2		1st Week	2,3,4,5		Components, Vehicle mechanics: Roadway fundamentals	
3		2nd Week	9,10,11,12		Vehicle kinetics, Dynamics of vehicle motion; Propulsion System Design	
4	FEBRUARY	3rd Week	16,17,18,19	Battery Basics	Types; Parameters: Capacity, Discharge rate, State of charge, State of Discharge	
5		4th Week	23,24,25,26		Depth of Discharge; Technical characteristics	
6		1st Week	2,3,5		Battery packDesign, Properties of Batteries.	
7		2nd Week	9,10,11,12		Motor and Engine rating; Requirements	
8	MARCH	3rd Week	16,17,18,19	DC & AC Electrical Machines	DC machines; Three phase A/c machines;	
9		4th Week	23,24,25,		Induction machines	
10		5th Week	30,31,		Permanent magnet machines	
11		1st Week	1,2		Switched reluctance machines.	
13		2nd Week	6,7,8,9		Transmission configuration	
14	APRIL	3rd Week	13,16	Electric Vehicle Drive Train	Components: Gears, Differential	
15		4th Week	20,21,22,23		Clutch, Brakes; Regenerative braking	
16		5th Week	27,28,29,30		Motor sizing; Fuel efficiency analysis.	
17		2nd Week			HOUSE TEST	
18	MAY	3rd Week	11,12,13,14	Hybrid Electric Vehicles	Types: Parallel, Series, Parallel and Series configurations	
19		4th Week	18,19,20,21		Drive train; Sizing of components; Basics of Micro	
20		5th Week	25,26		Mild, Mini, Plugin and Fully hybrid.	

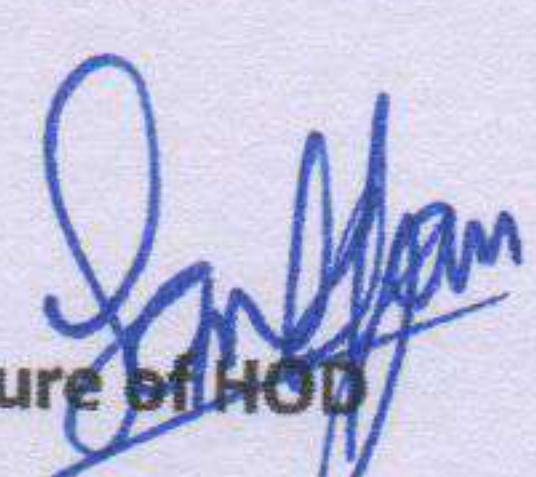

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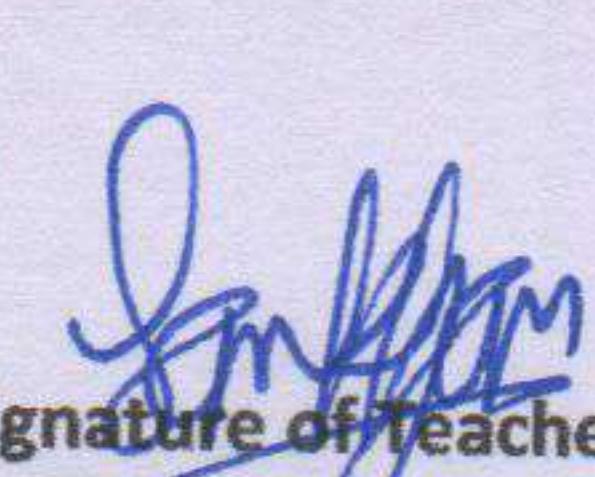
LESSON PLAN

Name of Teacher :- Ravi Sankhyam					Subject: Industrial Engg.	Class: 6th Semester Automobile Engg.
S. No.	Month	Week	Date	Name of Chapter	Contents to be taught	Remarks
1	JANUARY	5th Week	28,29,30,31	Plant Engineering	Plant; Selection of site of industry; Plant layout; Principles of a good layout; Types; Process; Product and Fixed position; Techniques to improve Layout; Principles of Material handling equipment	
2		1st Week	4,5,6,7		Plant maintenance; Importance; Break down maintenance; Preventive maintenance and Scheduled maintenance. Plant Safety: Importance	
3		2nd Week	11,12,13,		Accident: Causes and Cost of an Accident, Accident Proneness, Prevention of Accidents; Industrial disputes; Settlement of Industrial disputes; Collective bargaining; Conciliation; Mediation; Arbitration; Indian Factories Act 1948 and its provisions related to health, welfare and safety.	
4		3rd Week	18,19,20,21	Work Study	Productivity; Methods of improving Productivity, Importance of good working conditions. Method Study: Definition; Objectives; Selection of a job for method study; Basic procedure for conduct of Method study; Tools used; Operation process chart	
5		4th Week	25,26,27,28		Flow process chart; Two handed process chart; Man Machine chart; String diagram and flow diagram. Work Measurement: Definition; Basic procedure in making a time study; Employees rating factor	
6	FEBRUARY	1st Week	5,6,7	Production Planning and Control	Application of time allowances: Rest, Personal, Process, Special and Policy allowances; Calculation of standard time; Numerical Problems; Basic concept of production study; Techniques of Work Measurement; Ratio delay study; Synthesis from standard data; Analytical estimating and Pre determined Motion Time System (PMTS).	
7		2nd Week	11,12,13,		Introduction; Major functions of Production Planning and Control; Pre planning; Methods of forecasting; Routing and Scheduling; Dispatching and Controlling; Concept of Critical Path Method (CPM)	
8		3rd Week	18,19,20,		Types of Production: Mass Production, and Job Order Production; Characteristics; Economic Batch Quantity (EBQ); Principles of Product and Process Planning; Make or Buy decision; Numerical problems. Sampling Inspection; Single and Double Sampling plan; Concept of ISO 9001:2008	
9		4th Week	25,27,28		Quality Control: Definition; Objectives; Types of Inspection: First piece, Floor and Centralized Inspection; Advantages and Disadvantages; Statistical Quality Control; Types of Measurements; Method of Variables; Method of Attributes; Uses of X, R, p and c charts; Operating Characteristics curve (O.C curve) Quality Management System Registration/Certification procedure; Benefits of ISO to the organization.	
11	MARCH	1st Week	1,2,4	Principles of Management	Definition of Management; Administration; Organization; F.W. Taylor's and Henry Fayol's Principles of Management; Functions of Manager; Types of Organization: Line, Staff, Taylor's Pure functional types; Line and staff and committee type	
13		2nd Week	8,9,10,		Directing; Leadership; Styles of Leadership; Qualities of a good leader; Motivation; Positive and Negative Motivation; Modern Management Techniques; Just In Time; Total Quality Management (TQM); Quality circle; Zero defect concept; 5S Concept	
14		3rd Week	16,17,18		Management Information Systems. Personnel Management: Responsibility of Human Resource Management; Selection Procedure; Training of Workers; Apprentice Training; On the Job training and Vestibule School Training; Job Evaluation and Merit Rating	
15		4th Week	22,23,24,25		Objectives and Importance; Wages and Salary Administration; Components of Wages; Wage Fixation; Type of Wage Payment: Halsey's 50% Plan, Rowan's Plan and Emerson's efficiency plan; Numerical Problems.	
16		5th Week	29,30		Financial Management	Fixed and Working Capital; Resources of Capital; Shares Preference and Equity Shares; Debentures; Type of debentures; Public Deposits; Factory Costing: Direct Cost
17	APRIL	1st Week	2,	Financial Management	Indirect Cost; Factory Overhead; Selling Price of a product; Profit; Numerical Problems,	
18		2nd Week			HOUSE TEST	
19		3rd Week	13,14,15,16		Depreciation; Causes; Methods: Straight line, sinking fund and percentage on Diminishing Value Method; Numerical Problems.	
20		4th Week	20,21,22,23		Material Management: Objectives of good stock control system; ABC analysis of Inventory, Procurement and Consumption cycle; Minimum Stock, Lead Time, Reorder Level-Economic Order Quantity problems; Supply Chain.	

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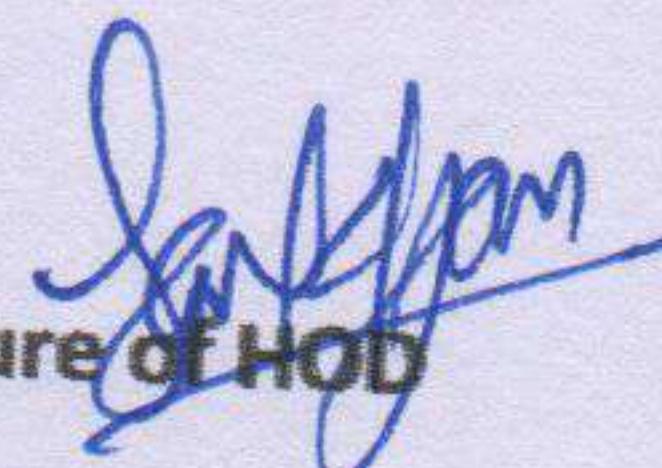


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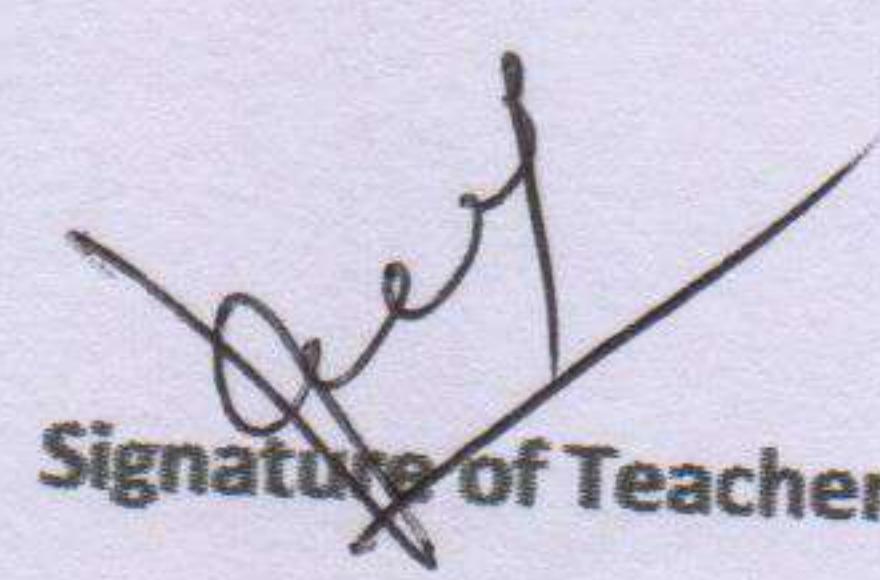


Name of Teacher :- Virender Kumar				LESSON PLAN		Class: 6th Semester Automobile Engg.	
S. No.	Month	Week	Date	Subject: Entrepreneurship and Startups	Name of Chapter	Contents to be taught	Remarks
1	JANUARY	5th Week	27,28,29	Introduction to Entrepreneurship and Start-Ups	Business Ideas and their implementation	Definitions, Traits of an entrepreneur, Intrapreneurship, Motivation.	
2		1st Week	2,3,4,5			Types of Business Structures	
3		2nd Week	9,10,11,12			Similarities/differences between entrepreneurs and managers.	
4		3rd Week	16,17,18,19			Discovering ideas and visualizing the business	
5		4th Week	23,24,25,26			Activity map	
6	MARCH	1st Week	2,3,5	Idea to Start-up	Management	Business Plan	
7		2nd Week	9,10,11,12			Market Analysis—Identifying the target market	
8		3rd Week	16,17,18,19			Competition evaluation and Strategy Development	
9		4th Week	23,24,25			Marketing and accounting	
10		5th Week	30,31			Risk analysis	
11	APRIL	1st Week	1,2	Financing and Protection of Ideas	HOUSE TEST	Company's Organization Structure	
13		2nd Week	6,7,8,9			Recruitment and management of talent	
14		3rd Week	13,16			Financial organization and management	
15		4th Week	20,21,22,23			Financing methods available for start-ups in India	
16		5th Week	27,28,29,30			Communication of Ideas to potential investors—Investor Pitch, Patenting and Licenses	
17	MAY	2nd Week		Exit strategies for entrepreneurs		Exit strategies for entrepreneurs, bankruptcy succession and harvesting strategy	
18		3rd Week	11,12,13,14				
19		4th Week	18,19,20,21				
20		5th Week	25,26			Revision	

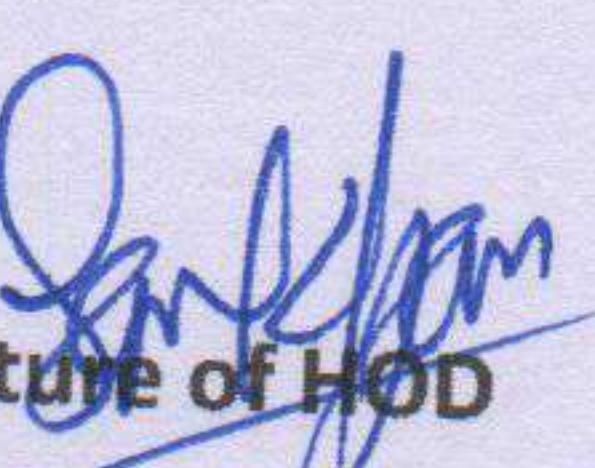
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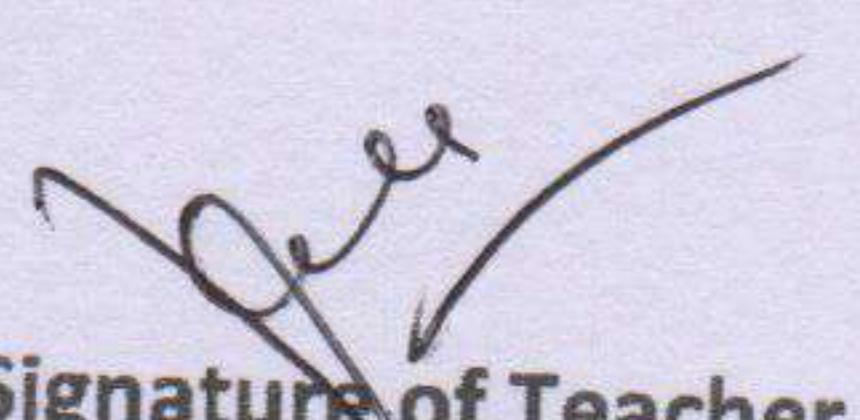


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LESSON PLAN					
Name of Teacher :- Virender Kumar		Subject: Indian Constitution		Class: 6th Semester Automobile Engg.	
S. No.	Month	Week	Date	Name of Chapter	Contents to be taught
1	FEBRUARY	5th Week	30,31	Introduction to Constitution	History of making of the Indian Constitution Meaning and importance of the Constitution.
2		1st Week	6,7		Salient features and Preamble of Indian Constitution.
3		2nd Week	13,		Fundamental rights- meaning and limitations.
4		3rd Week	20,21		Directive principles of state policy and Fundamental duties -their enforcement and
5		4th Week	27,28		Structure of Union Government.
6	MARCH	1st Week	6,7	Union Government	Union Executive- President, Vice-president, Prime Minister, Council of Ministers.
7		2nd Week	13,		Union Legislature- Parliament and Parliamentary proceedings.
8		3rd Week	20,		Union Judiciary-Supreme Court of India – composition and powers and function.
9		4th Week	27,28		Structure of State Government.,State Executive- Governor, Chief Minister, Council of Ministers.
11	APRIL	1st Week	4	State and Local Governments	State Legislature-State Legislative Assembly and State Legislative Council.
13		2nd Week	10		State Judiciary-High court.
14		3rd Week	17,18		Local Government-Panchayat raj system with special reference to 73rd and Urban,Local Self Govt. with special reference to 74th Amendment.
15		4th Week	24,25		Election Commission of India-composition, powers and functions and electoral process
17	MAY	1st Week	2,	Election provisions, Emergency provisions, Amendment of the constitution	HOUSE TEST
18		2nd Week			Types of emergency-grounds, procedure, duration and effects. Amendment of the constitution- meaning, procedure and limitations
19		3rd Week	15,16	Election provisions, Emergency provisions, Amendment of the constitution	Revision
20		4th Week	22,23		


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