
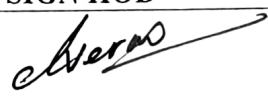



## PLANNED SYLLABUS COVERAGE

“PVCNSSK” G.P Bilaspur		Department: Mechanical Engg. Subject –Automobile Engineering(6 <sup>th</sup> )				
SYLLABUS COVERAGE		Course - Diploma		Duration – 3 Years		
SYLLABUS COVERAGE		Total Periods -56		Theory –56 hours		
Sr No	Period Nos	Topic	Details	Instruction Reference	Additional Study Recommended	Remarks
1	1-4	<b>Introduction</b>	1.1 Components of an automobile 1.2 Classification of automobiles 1.3 Layout of chassis 1.4 Types of drives-front wheel, rear wheel, four wheel, left hand, right hand 1.5 Introduction to electric vehicle	Automobile Engineering Vol I,II, Kirpal Singh.		
2.	5-22	<b>Transmission System</b>	2.1 Clutch Function, Constructional details of single plate and multi plate friction clutches, Centrifugal and semi centrifugal clutch 2.2 Gear Box: Function, Working of slide mesh, constant mesh and synchro mesh gear box, Torque converter and overdrive 2.3 Propeller shaft and rear axle Function, Universal joint, Differential, Rear axle drives and different types of rear axles 2.4 Wheels and Tyres Types of wheels-disc wheels and wire wheel, Types of tyres used in Indian vehicles, Causes of tyre wear, Toe in, Toe out, Camber, Caster, Kingpin inclination, Tube less tyres	Automotive Engineering, Jain and Asthana, Tata McGraw Hill.		
3	23-27	<b>Steering System</b>	3.1 Function and principle 3.2 Ackerman and Davis steering gears 3.3 Types of steering gears- worm and nut, worm and wheel, Rack and pinion type 3.4 Introduction to power steering	Automobile Engg. RB gupta		
4	28-33	<b>Braking System</b>	4.1 Constructional detail and working of mechanical, hydraulic and vacuum brake. 4.2 Concept of brake adjustment & Bleeding of brakes 4.3 Introduction to ABS, EBD and hill assist braking system 4.4 Introduction to Traction control			

  
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SYLLABUS COVERAGE		Total Periods:56		Theory:56		Remarks
Sr No	Period Nos	Topic	Details	Instruction Reference	Additional Study Recommended	
5	34-37	Suspension System	5.1 Function 5.2 Types 5.3 Working of coil spring, leaf spring 5.4 Shock absorber	Automobile Engineering Vol I,II, Kirpal Singh.		
6	38-42	Battery	6.1 Constructional details of lead and cell battery 6.2 Specific gravity of electrolyte 6.3 Effect of temperatures, charging and discharging on specific gravity 6.4 Capacity and efficiency of battery 6.5 Battery charging 6.6 Maintenance of batteries 6.7 Checking of batteries for Voltage and specific gravity	Automotive Engineering, Jain and Asthana , Tata McGraw Hill.		
7	43-47	Dynamo and Alternator	7.1Dynamo, Function and details, Regulators-voltage, current and compensated type, Cut out-Construction, working and their adjustment. 7.2 Alternator, Construction and working, Charging of battery from alternator			
8	48-51	Introduction to special purpose vehicles	8.1 Tractors 8.2 Forklift 8.3 Cranes & Recovery vehicles	Automobile Engg. RB gupta		
9	52-56	Lighting System and Accessories	9.1 Introduction to Lighting system of automobile 9.2 Windscreen Wiper 9.3 Horn 9.4 Speedometer 9.5 HVAC system			

  
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