

GOVERNMENT POLYTECHNIC, NABARANGPUR DEPARTMENT OF AUTOMOBILE ENGINEERING		
Discipline: AUTOMOBILE ENGG.	Semester: 6th	Name of the Teaching Faculty: RABINDRA PRASAD RATH
Subject: TH3. VEHICLE MAINTENANCE AND MOTORVEHICLE ACT	No. of days/per week class allotted: 4	Semester From date: 04-02-2025 To Date: 17-05-2025 No. of Weeks: 15
COURSE OUTCOMES	CO1: Compare and understand types of maintenance systems and knowledge about various types of service station and layout of workshop. CO2: Understand use of tools and equipment's. CO3: Execute services, repairs and overhauling processes of different systems of vehicle. CO4: Knowledge about different motor vehicle acts.	
Week	Class Day	Theory/Practical Topics
1ST	1ST	1. VEHICLE MAINTENANCE Introduction Need of maintenance Types of maintenance systems
	2ND	Breakdown maintenance Preventive maintenance
	3RD	Predictive maintenance
	4TH	Total productive maintenance
2ND	1ST	2. SERVICE STATION Service station and types
	2ND	Private service stations Company's authorized service stations
	3RD	Company's dealer service stations Criteria for service station

	4 TH	Workshop layout Important elements in workshop layout
3 RD	1 ST	Workshop documents and records Job card and its importance
	2 ND	REVISION
	3 RD	3. TOOLS AND EQUIPMENTS Introduction List of tools List of equipment's
	4 TH	Spanners or wrenches Double ended open jaw spanner (fix spanner) Double ended ring spanner
4 TH	1 ST	Combination spanner Socket or box spanner Screw driver Types of screw and screw drivers
	2 ND	Torque wrenches Pliers Allen keys Hammers Chisels
	3 RD	Files Hacksaws Wire brush and scraper Taps and dies Drill bits Reamers
	4 TH	Measuring tools Valve spring compressors Piston ring compressor Oil filter wrenches
5 TH	1 ST	Wheel aligner Brake bleeding equipment's High pressure compressor High pressure car wash machine Engine analyser Hydraulic press Spark plug tester and cleaner machine Injector tester and cleaner machine Battery charging and testing machine
	2 ND	

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	3 RD	4. SERVICE, REPAIR AND OVERHAUL Troubles, Causes & remedies in engine, fuel system, cooling system, lubrication system & MPFI Engine
	4 TH	4. SERVICE, REPAIR AND OVERHAUL Troubles, Causes & remedies in engine, fuel system, cooling system, lubrication system & MPFI Engine
6 TH	1 ST	Service, repair and overhaul of engine Service, repair and overhaul of chassis and body
	2 ND	Troubles, Causes & remedies in engine, fuel system, cooling system, lubrication system & MPFI Engine
	3 RD	Service, repair and overhaul of engine Service, repair and overhaul of chassis and body
	4 TH	MOTOR VEHICLES ACT Introduction Short explanation on different sections like 3,4,5,19,39,49,50,51,128,129,130,133.
7 TH	1 ST	Short explanation on different sections like 3,4,5,19,39,49,50,51,128,129,130,133.
	2 ND	Necessity for driving license. Restrictions on granting of learner's licenses for certain vehicles
	3 RD	Necessity for driving license. Restrictions on granting of learner's licenses for certain vehicles
	4 TH	Grant of learner's licenses. Grant of Permanent driving licenses.
8 TH	1 ST	REVISION
	2 ND	Grant of learner's licenses. Grant of Permanent driving licenses.
	3 RD	Necessity of registration of vehicle. Registration –where to be made.

	4 TH	Causes & remedies in engine, fuel system, cooling system, lubrication system & MPFI Engine
9 TH	1 ST	Causes & remedies in engine, fuel system, cooling system, lubrication system & MPFI Engine
	2 ND	MPFI Engine operation
	3 RD	MPFI Engine operation
	4 TH	REVISION
10 TH	1 ST	Procedure for registration.
	2 ND	Procedure for registration.
	3 RD	Procedure for registration.
	4 TH	Condition for refusal of registration
11 TH	1 ST	Condition for refusal of registration
	2 ND	Condition for refusal of registration
	3 RD	Temporary registration.
	4 TH	Temporary registration.
12 TH	1 ST	Permanent registration.
	2 ND	Permanent registration.
	3 RD	MONTHLY QUIZ
	4 TH	REVISION
13 TH	1 ST	Renewal of registration certificate
	2 ND	Renewal of registration certificate
	3 RD	Necessity for driving license. Restrictions on granting of learner's licenses for certain vehicles

	4 TH	Necessity for driving license. Restrictions on granting of learner's licenses for certain vehicles
14 TH	1 ST	Necessity for driving license. Restrictions on granting of learner's licenses for certain vehicles
	2 ND	Grant of learner's licenses. Grant of Permanent driving licenses.
	3 RD	Grant of learner's licenses. Grant of Permanent driving licenses.
	4 TH	Necessity of registration of vehicle. Registration –where to be made.
15 TH	1 ST	REVISION
	2 ND	Condition for refusal of registration
	3 RD	Condition for refusal of registration
	4 TH	REVISION

LEARNING RESOURCES:

<u>SL. NO.</u>	<u>NAME OF AUTHORS</u>	<u>TITLE OF THE BOOK</u>	<u>NAME OF THE PUBLISHER</u>
<u>1</u>	<u>JIGAR A. DOSHI /</u> <u>DHRUV U.</u> <u>PANCHAL /</u> <u>JAYESH P.</u> <u>MANIAER</u>	<u>VEHICLE</u> <u>MAINTENANCE</u> <u>AND GARAGE</u> <u>PRACTICE</u>	<u>PHI PUBLISHERS</u>
<u>2</u>	<u>KIRPAL SINGH</u>	<u>AUTOMOBILE</u> <u>ENGINEERING</u>	<u>STANDARDPUBLI</u> <u>SHE</u> <u>RS</u>
<u>3</u>	<u>CROUSE /</u> <u>ANGLIN</u>	<u>AUTOMOBILE</u> <u>MECHANICS</u>	<u>MC GRAWHILL</u>
<u>4</u>	<u>ANIL CHIKARA</u>	<u>AUTOMOBILE</u> <u>ENGINEERING</u> <u>VOL. III, IV</u>	<u>SATYA</u> <u>PRAKASHAN</u>
<u>5</u>	<u>V.S. KHILERY &</u> <u>DR. SATPAL</u> <u>SHARMA</u>	<u>MOTOR VEHICLE</u> <u>ACT AND</u> <u>TRANSPORT</u> <u>MANAGEMENT</u>	<u>ISHANS</u>

Satendra Bath.
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