

## AUTO PARTS MERCHANDISING

### SCHEME OF EXAMINATION

There will be two papers, Paper 1 and 2, both of which will be a composite paper to be taken at a sitting.

**PAPER 1:** Will consist of forty multiple choice questions all of which must be taken in 50 minutes for 40 marks.

**PAPER 2:** Will consists of two sections, Sections A and B. Both sections will last for 2 hours and carry 100 marks.

**Section A:** Will consist of three questions including a compulsory one and drawn on the technical part of the syllabus. Candidates will be required to answer two questions, including the compulsory one. The section will carry 40 marks.

**Section B:** Will consist of four questions based on the merchandising part of the syllabus. Candidates will be required to answer three of the questions for 60 marks.

### DETAILED SYLLABUS

S/N	SECTIONS	CONTENTS	NOTES
1.	<b>TECHNICAL SECTION</b>	<b>(A) AUTOMOBILE PARTS</b>	<p><b>(1) SAFETY IN AUTO PARTS MERCHANDISING SHOP:</b></p> <ul style="list-style-type: none"> <li>i. Definition of safety.</li> <li>ii. Safety clothing ( helmet, goggle, hand glove, nose mask, foot boot, over all dress)</li> <li>iii. Fire extinguisher: types of extinguishers</li> <li>iv. Causes and prevention of accident</li> </ul> <p><b>(2) ENGINE PARTS:</b></p> <ul style="list-style-type: none"> <li>i. Identification of parts,</li> </ul>

			<p>examples Piston, Piston rings, Connecting rod, Camshaft, Crankshaft, Valves, Cylinder head and Oil pump.</p> <p>ii. Sketching of Engine parts as listed above.</p> <p>iii. Location and functions of engine parts.</p> <p><b>(3) TRANSMISSION SYSTEM(CLUTCH):</b></p> <p>i. Identification of parts of a clutch.( flywheel, clutch plate, pressure plate assembly and release bearing)</p> <p>ii. Functions of the clutch parts.</p> <p><b>(4) TRANSMISSION SYSTEM (GEAR BOX):</b></p> <p>i. Types of gear box: (manual – 3, 4 &amp; 5 speeds and automatic transmission)</p> <p>ii. Functions of gear box.</p> <p><b>(5) TRANSMISSION SYSTEM (PROPELLER SHAFT AND REAR AXLE ASSEMBLY):</b></p> <p>i. Types of propeller shafts and universal/sliding joints.</p> <p>ii. Functions of the transmission system parts.</p> <p>iii. Identification of parts of axle</p>
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			<p>assembly.</p> <p><b>(6) SUSPENSION SYSTEM:</b></p> <ol style="list-style-type: none"><li>i. Types. (Normal beam and independent suspension system.)</li><li>ii. Parts of suspension system- Damper, spring (coil springs, torsion bar, leaf spring)</li><li>iii. Functions of the parts.</li></ol> <p><b>(7) COOLING SYSTEM:</b></p> <ol style="list-style-type: none"><li>i. Types.( water and air cooling system)</li><li>ii. Functions of the cooling system.</li><li>iii. Parts of water and air cooling systems.( Radiators, fan blade, fan belt, water pump, water host and thermostat).</li></ol> <p><b>(8) STEERING SYSTEM:</b></p> <ol style="list-style-type: none"><li>i. Types. (Manual and power assisted steering.)</li><li>ii. Parts of a steering (steering gearboxes, steering wheel, steering shaft and tie-rod.</li><li>iii. Functions of the parts.</li></ol> <p><b>(9) BRAKING SYSTEM:</b></p> <ol style="list-style-type: none"><li>i. Types. (Disc and drum)</li><li>ii. Parts. ( master cylinder, wheel cylinder, connecting</li></ol>
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		<p style="text-align: center;"><b>(B) <u>TOOL, TEST</u></b> <b><u>EQUIPMENT AND</u></b> <b><u>ACCESSORIES</u></b></p>	<p>pipe, brake pads, brake shoes/ lining)</p> <p>iii. Functions of the parts.</p> <p><b>(10) LUBRICATION SYSTEM:</b></p> <p>i. Parts. ( Oil tank/sump, Oil filter, Oil cooler, Oil seal, Pressure switch and Oil pump &amp; types</p> <p>ii. Types of lubricant (Oil and grease)</p> <p>iii. Types of Oil (SAE40, SAE60 and SAE 30/20w)</p> <p>iv. Quality and uses of oil and grease.</p> <p><b>(11) ELECTRICAL PARTS:</b></p> <p>i. Components ( Battery, fuse, electrical control unit/brain box, alternator, ignition, coil, bulb, and cut-out)</p> <p>ii. Identification of the components.</p> <p>iii. Functions of the component.</p> <p><b>(12) WHEELS AND TYRES:</b></p> <p>i. Types of wheel ( Spoke wheel, alloyed wheel and pressed steel wheel)</p> <p>ii. Types of tyres (tube and tubeless)</p> <p>iii. Sizes of wheel and tyre.</p> <p>iv. Functions of wheel and tyre.</p>
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			<p>(1) TYPES OF TOOLS AND THEIR USES:</p> <ol style="list-style-type: none"><li>i. General tools (Spanner, harmer, mallet, allen key, screw driver, and plier)</li><li>ii. Special tools (Extractor, pullers, Sledge hammer, and lifters)</li><li>iii. Differences between general and special tools</li></ol> <p>(2) CARE OF TOOLS</p> <ol style="list-style-type: none"><li>i. Ways/means of caring for tools e.g.(greasing, cleaning and packing,)</li><li>ii. Effects of improper tools care</li></ol> <p>(3) TEST EQUIPMENT</p> <ol style="list-style-type: none"><li>i. Types (Spark plug cleaner, engine analyzer, dwell angle tester, Exhaust gas analyzer, and vacuum tester)</li><li>ii. Functions of different types of test equipment.</li></ol> <p>(4) MAINTENANCE OF TEST EQUIPMENT</p> <ol style="list-style-type: none"><li>i. Knowledge of starting and stopping of the equipment.</li><li>ii. Importance/Uses of manufacturers' manuel.</li></ol> <p>(5) ACCESSORIES</p> <ol style="list-style-type: none"><li>i. Definition.</li></ol>
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			<ul style="list-style-type: none"> <li>ii. Importance.</li> <li>iii. Care of accessories.</li> <li>iv. Types ( steering cover, car radio, wheel cover, seat cover and car cover)</li> </ul>
2.	<b>MERCHANDISING SECTION</b>	<b>(A) STORAGE, CATALOGING AND VISUAL PRESENTATION</b>	<p><b>(1) STORAGE:</b></p> <ul style="list-style-type: none"> <li>i. Definition</li> <li>ii. Process and ways of storing parts</li> <li>iii. Reasons for proper storing of parts</li> </ul> <p><b>(2) CATALOGUING:</b></p> <ul style="list-style-type: none"> <li>i. Definition.</li> <li>ii. Functions</li> <li>iii. Process of locating Auto parts using Catalogue.</li> </ul> <p><b>(3) RE-ORDER QUANTITY</b></p> <ul style="list-style-type: none"> <li>i. Meaning</li> <li>ii. Importance/Advantage of re-order quantity.</li> <li>iii. The process of re-ordering auto- parts quantity /Stock</li> <li>iv. Principle of maintaining parts/stock level and its importance.</li> <li>v. Calculations (Re-order level, FIFO and LIFO)</li> </ul> <p><b>(4) VISUAL PRESENTATION:</b></p> <ul style="list-style-type: none"> <li>i. Methods of items presentation /grouping/arrangement of</li> </ul>

			<p>parts ( by branding and manufacturers/models</p> <p>ii. Advantages of item presentation.</p> <p><b>(5) INVENTORY:</b></p> <p>i. Definition.</p> <p>ii. Types( Daily, Periodic and annual)</p> <p>iii. Procedure for inventory taking( use of bin card)</p> <p><b>(6) PRODUCT SOURCING:</b></p> <p>i. Definition.</p> <p>ii. Ways of sourcing products</p> <p>iii. Importance.</p>
		<p><b>(B) SALES, INVOICING, FORECASTING, RECORD KEEPING,, FUND RAISING, MARKET ANALYSIS, ADVERTISING, VALUE PRICING AND CUSTOMER SERVICES.</b></p>	<p><b>(1) SALES:</b></p> <p>i. Definition.</p> <p>ii. Types ( Cash, Credit/ deferred sales)</p> <p>iii. Method of selling (Personal, door-to-door, trade fairs, open market, unit shops.</p> <p>iv. Explanation and procedure for sales calls</p> <p><b>(2) INVOICING:</b></p> <p>i. Meaning.</p> <p>ii. Contents.</p> <p>iii. Uses/Importance.</p> <p><b>(3) FORECASTING:</b></p> <p>i. Definition.</p> <p>ii. Need/Reasons for forecasting.</p>

			<ul style="list-style-type: none"><li>iii. Advantages of forecasting.</li></ul> <p><b>(4) RECORD KEEPING:</b></p> <ul style="list-style-type: none"><li>i. Types of records. (sale journal, purchases journal, sales ledger, purchase ledger, invoice, receipt and cash book.)</li><li>ii. Process of keeping the records</li><li>iii. Uses of the various records.</li></ul> <p><b>(5) FUND RAISING(SOURCE OF FINANCE):</b></p> <ul style="list-style-type: none"><li>i. Definition of fund raising.</li><li>ii. Types of fund.</li><li>iii. Source/ways of raising fund.</li><li>iv. The process/procedure of raising fund.</li></ul> <p><b>(6) MARKET ANALYSIS:</b></p> <ul style="list-style-type: none"><li>i. Definition of market.</li><li>ii. Definition of market analysis.</li><li>iii. Definition of market segment.</li><li>iv. Explanation of Market segmentation.</li><li>v. Procedure and basis for Market Segmentation.</li></ul> <p><b>(7) VALUE PRICING:</b></p> <ul style="list-style-type: none"><li>i. Definition.</li><li>ii. Types.</li><li>iii. Application.</li></ul>
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			<p><b>(8) ADVERTISING:</b></p> <ol style="list-style-type: none"> <li>i. Definition.</li> <li>ii. Types.</li> <li>iii. Media of advertising.</li> <li>iv. Advantages.</li> </ol> <p><b>(9) CUSTOMER SERVICE:</b></p> <ol style="list-style-type: none"> <li>i. Meaning</li> <li>ii. Types</li> <li>iii. Importance/advantages</li> <li>iv. Handling of customers' complaints</li> </ol>
		<p><b>(C) WARRANTY/ GUARANTY AND REGULATORY BODIES.</b></p>	<p><b>(1) WARRANTY/ GUARANTY:</b></p> <ol style="list-style-type: none"> <li>i. Meaning.</li> <li>ii. Importance.</li> <li>iii. Procedure for claiming warranty/guaranty right</li> <li>iv. Process of losing warranty right</li> </ol> <p><b>(2) REGULATORY BODIES:</b></p> <ol style="list-style-type: none"> <li>i. Reason for regulation.</li> <li>ii. Quality control ( Definition and types)</li> <li>iii. Ways to improve quality.</li> <li>iv. Examples of Regulatory Body. (Standard Organisation of Nigeria-SON, Consumer Protection Board and Society of Automobile Engineers – SAE)</li> <li>v. Functions.</li> </ol>

		<b>(D) ENTREPRENUERSHIP</b>	<b>(1) INTRDUCTION TO AUTO PARTS MERCHANDISING:</b> i. Definition of merchandising. ii. Explanation of Auto parts merchandising. <b>(2) PERSONAL QUALITIES OF A MERCHANTISER:</b> i. Qualities of an auto parts seller. <b>(3) ETHICAL BUSINESS BEHAVIOUR:</b> i. Definition. ii. Type iii. Explanation of behavior expected of an Auto part seller.
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#### **RECOMMENDED TEXTBOOKS**

1. Technology For Motor Vehicle Mechanics, Parts 1, 2 &3. By Mudd, S.C.
2. Motor Vehicle Technology and Practical Work. By Dolan, D. A.
3. Principles of Marketing. By Philip Kotler.
4. Marketing. By Giles, G.B. ( The M&E Hand book)