ANNEXURE-III

SCHEME AND SYLLABUS FOR TO THE POST OF ASSISTANT MOTOR VEHICLE INSPECTORS IN TRANSPORT DEPARTMENT

SCHEME OF EXAMINATION

WRITTEN EXAMINATION (OBJECTIVE TYPE)	No. of Questions	Duration(Minutes)	Maximum Marks
PAPER-I:General Studies and General Abilities	150	150	150
PAPER-II: Automobile Engineering *(Diploma Level)*	150	150	300*
TOTAL MARKS			**450**
***Paper –II : Each question carries two marks**			

NAME OF THE PAPERS	LANGUAGE OF EXAMINATION
Paper-I: General Studies and General Abilities	Bilingual i.e., English and Telugu
Paper-II: Automobile Engineering (Diploma level)	English

SYLLABUS

PAPER-I: GENERAL STUDIES AND GENERAL ABILITIES

1. Current affairs – Regional, National and International.
2. International Relations and Events.
3. General Science; India's Achievements in Science and Technology.
4. Environmental issues; Disaster Management- Prevention and Mitigation Strategies.
5. Economic and Social Development of India and Telangana.
6. Physical, Social and Economic Geography of India.
7. Physical, Social and Economic Geography and Demography of Telangana.
8. Socio-economic, Political and Cultural History of Modern India with special emphasis on Indian National Movement.
9. Socio-economic, Political and Cultural History of Telangana with special emphasis on Telangana Statehood Movement and formation of Telangana state.
10. Indian Constitution; Indian Political System; Governance and Public Policy.
11. Social Exclusion; Rights issues such as Gender, Caste, Tribe, Disability etc. and inclusive policies.
12. Society, Culture, Heritage, Arts and Literature of Telangana.
13. Policies of Telangana State.
14. Logical Reasoning; Analytical Ability and Data Interpretation.
15. Basic English. (10^{th} Class Standard)

PAPER-II: AUTOMOBILE ENGINEERING (DIPLOMA LEVEL)

1. Thermal Engineering & Automobile Power Plants:

Thermodynamic Laws, Thermodynamic Processes, Air Standard Cycles, Fuels & combustion, Performance of IC Engines, Engine Construction, IC Engines - classification, Combustion Chambers; Various IC Engine systems - Lubrication, cooling, fuel (petrol & diesel engines), Inlet & Exhaust Systems.

2. Automobile Chassis, Body & Transmission System:

Chassis frame - Steering, Brakes, Suspension systems - Body Design & construction - Clutch - Gearbox - Propeller Shaft & Universal Joints - Final drive - Differential - Front Axle - Rear Axle - Wheels &Tyres.

3. Automobile Servicing and Maintenance, Automobile Electrical Systems:

Garage & Service station tools and equipment - Servicing & maintenance procedures - Servicing and Maintenance of 2 & 4 wheelers - Automobile Reconditioning Equipment - Reconditioning of Diesel FIP & Injectors - Vehicle Testing & Diagnosis - Automotive Emission and Control - Fundamentals of Electrical Technology - Basic Electronic Devices - Batteries - Ignition System - Generating System - Starting Motor - Wiring Systems, Lighting and Accessories.

4. Motor Transport Organisation& Industrial Management & Entrepreneurship:

Management Principles - Organisational Structure - Operations - Fleet Planning - Bus & Crew Scheduling - Transport Economics - Traffic and Fares - Legal Aspects of Motor Transport - Production Management - Material Management - Industrial Legislation & Safety - ISO 9000 & TQM - Entrepreneur Development.

5. Special Purpose Vehicles & basic hydraulics:

Purpose and Types of SPVs - Farm Tractors - Earth Moving Vehicles - Fluid properties - Flow of Fluids - Oil power hydraulics & pneumatics - Hydraulic machinery.

6. Engineering Mechanics & Strength of Materials:

Application of Statics - Friction - Simple Machines - Basic Link Mechanism - Transmission of Power - Simple Stresses & Strains - Geometrical properties of Sections - S.F. & B.M. Diagrams.

7. Machine Design:

Bolts & Nuts, Torsion in shafts & springs - Keys and couplings - Gears - Cams - Governors and Fly wheels - Design of Automobile Components.

8. Engineering Materials & Production Technology:

Mechanical properties & testing of materials - Iron-Carbon Equilibrium Diagram - Manufacture of Iron & Steel - Heat Treatment - Ferrous & non-Ferrous Metals & Alloys - Welding - Lathe and Lathe work - Drilling - Milling - Gear Making - Grinding - Jigs & Fixtures - Modern Machining Processes - Foundry - Casting - Forging - Mechanical Working of Metals.