SCHEME AND SYLLABUS FOR RECRUITMENT TO THE POST OF ASSISTANT MOTOR VEHICLE INSPECTORS IN A.P. TRANSPORT SUBORDINATE SERVICE

SCHEME

(To G.O Ms. No.141, Finance (HR-I Plg. & Policy) Dept., dated:01.08.2016 scheme of examination for recruitment to all non- gazetted categories not covered in annexure-IV)

WRITTEN EXAMINATION (Objective Type)

<table>
<thead>
<tr>
<th>Paper</th>
<th>Subject</th>
<th>Max. Marks</th>
<th>No. of Questions</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAPER-1</td>
<td>General Studies and Mental Ability</td>
<td>150 Marks</td>
<td>150 Qns.</td>
<td>150 Minutes</td>
</tr>
<tr>
<td>PAPER-2</td>
<td>Concerned Subject (Automobile Engg. Diploma Standard)</td>
<td>150 Marks</td>
<td>150 Qns.</td>
<td>150 Minutes</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>300 Marks</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NEGATIVE MARKS: As per G.O. Ms. No.235 Finance (HR-I, Plg & Policy) Dept., Dt.06/12/2016, for each wrong answer will be penalized with 1/3rd of the marks prescribed for the question.

Syllabus

PAPER –I  General Studies and Mental Ability

1. Events of national and international importance.
2. Current affairs- international, national and regional.
3. Basics of General Science and their relevance to the day to day life. Current developments in science, technology and information technology.
4. History of Modern India with emphases upon Indian national movement.
5. Economic development in India since independence.
6. Logical reasoning, analytical ability and data interpretation.
7. Basic things about Disaster management (CBSE-VIII & IX Standard).
8. Geography of India with focus on A.P
10. Sustainable Development and Environmental Protection.
11. Bifurcation of Andhra Pradesh and its Administrative, Economic, Social, Cultural, Political, and legal implications/problems, including
   a). Loss of capital city, challenges in building new capital and it’s financial implications.
   b). Division and rebuilding of common Institutions.
   c). Division of employees, their relocation and nativity issues.
   d). Effect of bifurcation on commerce and entrepreneurs.
   e). Implications to financial resources of state government.
   f). Task of post-bifurcation infrastructure development and opportunities for investments.
   g). Socioeconomic, cultural and demographic impact of bifurcation.
   h). Impact of bifurcation on river water sharing and consequential issues.

**PAPER-II (Concerned Subject)**

1. Basic thermodynamics- Systems-Closed/Open systems, Property, cycle, Thermodynamic equilibrium- Zeroth law, First law, Second Law of thermodynamics- Pure substance-Mollier Diagram-Vapor Power cycles-Rankine cycle-
2. Air standard cycles-Otto, Diesel, Dual combustion cycle, derivation of expressions for mean effective pressure-diagram factor, efficiency, Sterling engine,
4. Shafts- solid, hollowshafts; shear stress and angular deflection due to torque applied; bending moments — combined moment andtorque.
5. Friction - inclined plane; screw and nut; screw jock; self locking.
7. Single cylinder, multi cylinder engine - pre whirl chambers- combustion/ignition delay - knocking, detonation.
8. Firing order; piston and piston rings; temperature profile of piston.
11. Lubrication and cooling systems in automobile.
12. Transmission - gear box - clash type, synchromesh, automatic transmission systems.
13. propeller-shaft — universal coupling — differential - half shafts - floating,
15. Brakes and brake mechanisms - mechanical, hydraulic and air brakes,
17. Electrical system - delco system, circuit wiring, working of electrical equipment.
19. Air conditioning of automobiles
20. Automobile wheel alignment — camber. castor — Kingpin inclination — toe-in, toe-out
23. Instrumentation - transducers - Motion, level, force and temperature transducers - Closed loop control and open loop control systems

*****