

# Andhra Pradesh Public Service Commission Syllabus

## APPSC Asst Motor Vehicle Inspector Syllabus - General Studies

- Current affairs- international, national and regional.
- Disaster management: vulnerability profile, prevention and mitigation strategies, Application of Remote Sensing and GIS in the assessment of Disaster.
- A social- economic and political history of modern India with emphasis on Andhra Pradesh.
- Economic development in India since independence with emphasis on Andhra Pradesh.
- Bifurcation of Andhra Pradesh and its Administrative, Cultural, Political, Economic, Social, and Legal Implications/problems
- Indian polity and governance: constitutional issues, public policy, reforms and e-governance initiatives with specific reference to Andhra Pradesh.
- Events of national and international importance.
- Sustainable Development and Environmental Protection
- The physical geography of Indian sub-continent and Andhra Pradesh.
- General Science and Information Technology

## Andhra Pradesh Public Service Commission Mental Ability Syllabus

### Verbal Reasoning

- Analogy
- Series Completion
- Verification of truth of the Statement
- Situation Reaction Test
- Direction Sense Test
- Classification
- Data Sufficiency
- Alpha- Numeric Sequence Puzzle
- Puzzle Test
- Blood Relations
- Coding- Decoding
- Assertion and Reasoning
- Arithmetical Reasoning
- Operations of Mathematics
- Venn Diagrams
- Word Sequence
- Missing Characters
- Sequential Output training
- Directions
- Test on Alphabets
- Eligibility Test

# Andhra Pradesh Public Service Commission Syllabus

## Non-Verbal Reasoning

- Dot Situation
- Identical figure groupings
- Forming figures and analysis
- Construction of squares and Triangles
- Series
- Analogy
- Analytical Reasoning
- Paper Folding
- Paper Cutting
- Cubes and Dice
- Water Images
- Mirror Images
- Figure Matrix
- Completion Incomplete Pattern
- Spotting embedded figures
- Classification

## psc.ap.gov.in Assistant Motor Vehicle Inspectors Automobile Engineering Syllabus

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
3. gears-nomenclature-simple, compound, epicyclic trains-calculations of torque.
4. Shafts- solid, hollow shafts; shear stress and angular deflection due to torque applied; bending moments — combined moment and torque.
5. Friction - inclined plane; screw and nut; screw jock; self-locking.
6. Fuels - fire and flash point - calorific value - calorimeters- octane, certane numbers and its importance — stoichiometric ratio.
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.

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9. Fuel system - Carburetion, carburetors, Gasoline/petrol injection systems - diesel fuel injection systems, types-common rail injection system, Fuel tank.
10. Balancing of single cylinder engines.
11. Lubrication and cooling systems in the automobile.
12. Transmission - gearbox - clash type, synchromesh, automatic transmission systems.
13. propeller-shaft — universal coupling — differential - half shafts - floating,
14. clutches - single, multi-plate - bearing pressure-pressure plate - axial load - fluid clutch.
15. Brakes and brake mechanisms-mechanical, hydraulic and air brakes,
16. Steering - condition for correct steering —Ackermann steering.
17. Electrical system - Delco system, circuit wiring, working of electrical equipment.
18. Exhaust gas analysis —Pollutants –Sources – Formation – Effects Of Pollution On Environment – Human – Transient Operational Effects On Pollution – Regulated - Unregulated Emissions – Emission Standards. EMISSIONS IN SI ENGINE: Chemistry Of SI Engine Combustion – HC and CO Formation In SI Engines – NO Formation In SI Engines – Smoke Emissions From SI Engines – Effect Of Operating Variables On Emission Formation. EMISSIONS IN CI ENGINE: Basics Of Diesel Combustion – Smoke Emission And Its Types In Diesel Engines – NO<sub>x</sub> Emission And Its Types From Diesel Engines – Particulate Emission In Diesel Engines. Odor, Sulfur And Aldehyde Emissions From Diesel Engines – Effect Of Operating Variables On Emission Formation.
19. Air conditioning of automobiles
20. Automobile wheel alignment — chamber. castor —Kingpin inclination —toe-in, toe-out.
21. Maintenance of tires - traffic Rules.
22. Materials- structure of the metals -imperfections-ferrous and nonferrous materials-heat treatment of steels.
23. Instrumentation- transducers- Motion, level, force, and temperature transducers-Closed loop control and open-loop control systems