

MPSC ASSISTANT MOTOR VEHICLE INSPECTOR (AMVI), RTO

Maharashtra Public Service Commission (MPSC) announced recruitment of Assistant Motor Vehicle Inspector (AMVI) – Class 3 job vacancies in Regional Transport Office recently for Mechanical, Automobile, and Production Engineering disciplines.

Total Vacancies announced: 240

Important Dates:

Applications commencing date:	17 January 2020
Applications closing date:	06 February 2020
Tentative date of Preliminary Examination:	15 March 2020
Tentative date of Mains Examination:	12 July 2020

Eligibility Criteria:

01. Educational Qualification:

Engineering Diploma in Production Technology / Production Engineering / Machine Tools Maintenance / Fabrication Technology / Fabrication and Erection Engineering / Plant Engineering / Metallurgy

(OR)

Bachelor's Degree in Mechanical Engineering / Automobile Engineering / Production Engineering / Industrial Engineering

Note: Final year students can also apply

02. Age:

Minimum age – 19 Years and Maximum age – 38 for general category candidates as on 01 May 2020

03. Physical Criteria:

	Male	Female
Minimum Height	163 cm	155 cm
Chest Measurement	79 cm (84 cm after expansion)	45 kg (Weight)

Note: Candidates with eye-glasses are eligible but candidates with colour-blindness and physically challenged are not eligible.

04. Driving licence of two-wheeler with gear and four-wheeler is required.

Note: Driving licence can be obtained before the mains examination. Heavy motor vehicle (HMV) licence and Garage experience is not required.

Scheme and Syllabus of Examination:

Examination is held in two stages namely Preliminary and Mains. No interview round.

Prelims	100 marks	Objective Type
Mains	300 marks	Objective Technical

Note: Only the marks obtained in the mains examination are considered as preliminary examination is qualifying in nature and so does not have any bearing on final selection. No interview round since it is a class three (3) position.

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Prelims:

Subject	No. of Questions	Marks	Medium	Exam Duration	Exam Type
General Studies	50	50	Marathi & English	60 minutes	Objective
Mental Ability	30	30			
Trends in Automobile and Mechanical Engineering	20	20			

Note: Negative marking is applicable and every wrong answer attracts deduction of 1/4th or 0.25 marks

Syllabus (Prelims)

1. General Studies include Geography, History, Polity, General Science, Social and Industrial Reforms, and Current Affairs (with special emphasis on Maharashtra). All topics of General Studies carry more or less equal weightage
2. Mental Ability includes Reasoning and aptitude with emphasis on Reasoning part
3. Trends in Automobile Engineering has a weightage of 15 marks whereas trends in Mechanical Engineering carry 5 marks

Mains:

Mains exam paper has three sections namely Section A (Mechanical and Automobile Engineering), Section B (Mechanical Engineering), and Section C (Automobile Engineering). Of the three, Section A carries weightage of 240 marks while Section B and C carry equal weightage of 60 marks each. While Section A is mandatory, Students can opt for either Section B or Section C at the time of filling the application form as per their engineering background.

Section	Subject	No. of Questions	Marks	Medium	Exam Duration	Exam Type
Section – A	Mechanical and Automobile Engineering	120	240	English	90 minutes	Objective
Section – B	Mechanical Engineering	30	60			
Section – C	Automobile Engineering	30	60			

Note: Negative marking is applicable and every wrong answer attracts deduction of 1/4th or 0.25 marks

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Syllabus (Mains):

Section – A (Mechanical and Automobile Engineering – 120 Questions & 240 Marks)

01. Strength of Materials

Stress and strain, Strain energy, Shearing force and bending moment, Moment of inertia, Principal planes and stresses, Slope and deflection. Direct and bending stresses, columns, Torsion and thin cylinders

02. Mechanical Technology

Engineering materials, Non chip forming processes, chip forming process: Turning, Drilling, Milling, Boring, Broaching, Finishing and super finishing, Gear production, NC-CNC and Non-conventional machining methods.

03. Theory of Machines

Kinematics and dynamics of machines, role of friction, different power devices and power transmission equipment such as governors, gyroscopes etc., Applications of cams.

04. Hydraulics

Fluids and their properties, Laminar and turbulent flow, Bernoulli's equation, Fluid pressure, Pascal's law, Surface tension, Fluid flow and its measurement.

05. Thermal Engineering

Sources of energy: Conventional and non-conventional, Laws of thermodynamics, Principle and working of heat engines, air compressors, Air standard, vapour power and gas power cycles.

06. A) Automobile Engines

Theory, working and constructional feature of C.I. and S.I. engines, Combustion phenomena and various ignition systems, Fuels and lubricants, Performance and testing of I.C. Engines, Pollution control.

B) Industrial Electronics

Diodes, UJT, BJT, Amplifiers, Microprocessors.

Section – B (Mechanical Engineering – 30 Questions & 60 Marks)

01. Hydraulic Machinery

Impact of jet, Hydraulic turbines, Hydraulic pumps: Centrifugal, reciprocating and other types. Hydraulic control circuits.

02. Refrigeration and Air Conditioning

Refrigerator and heat pump, Vapour compression and vapour absorption refrigeration systems, Refrigerants, Psychrometry, Air conditioning and its applications.

03. Industrial Engineering

Types of production, Plant layouts, Process planning, Work study, Statistical quality control, Metrology.

Section – C (Automobile Engineering – 30 Questions & 60 Marks)

01. Automobile Systems

Vehicle layout, Transmission system, Breaking systems, ABS, Steering and suspension system, Chasis frame and Body engineering.

02. Vehicle Maintenance

Performance of vehicles, Engine electricals and electronics, Workshop layout, Repairing and servicing, Emission measurements and control techniques.

03. Transport Management

Elements of transport and its operations, Motor vehicle act, Taxation and insurance.