

**Government of Jammu and Kashmir**  
**Transport Department,**  
**Civil Secretariat, Jammu**

**Subject:- Filling up of post of "Works Manager" in Motor Garages Department and notification of syllabus thereof.**

**Ref: Letter No: PSC/DR/Works Manager/2020/04 dated: 22.12.2020 of J&K Public Service Commission, Letter No. RCD-746/2423/DSMG dated 02.01.2021 from Director Motor Garages, J&K, Jammu and Letter No: DSD/Poly/101/G/346 dated: 06.04.2021 from Director, Skill Development, J&K.**

**Government Order No. 37 -JK (TR) of 2021**  
**Dated: 23 -04-2021**

Sanction is hereby accorded to the notification of the syllabus for the post of "Works Manager" in Motor Garages Department forming annexure "A" to this Government Order.

By order of the Government of Jammu and Kashmir.

Sd/-  
**(Hirdesh Kumar) IAS**  
Commissioner/Secretary to the Government,  
Transport Department.

No. TR-9/SMG/2015-II

Dated: 23-04-2021.

Copy to:

1. Joint Secretary (J&K), Ministry of Home Affairs, Government of India.
2. Secretary, Public Service Commission, J&K, Jammu.
3. Director, Skill Development, J&K, Jammu.
4. Director, State Motor Garages, J&K, Jammu.
5. Private Secretary to Hon'ble Advisor (Incharge Transport Department).
6. Private Secretary to Commissioner/Secretary to Government, Transport Department.
7. I/c Website.
8. Government Order/Stock file.

  
**(Raj Mohammad Malik) KAS**  
Deputy Secretary to Government  
Transport Department.

## Syllabus for the post of Works Manager in State Motor Garages

### **1. General English**

- i) Tenses
- ii) Rearranging of jumbled sentences
- iii) Modals
- iv) Articles
- v) Clauses
- vi) Prepositions
- vii) Adverbs
- viii) Conjunctions
- ix) Direct and Indirect speech
- x) Kind of sentences

### **2. Auto Electrical Equipment**

- i) Basic Quantities of electricity
- ii) Electromagnetic Induction
- iii) Electric Motor
- iv) Basic electronics
- v) Batteries
- vi) Charging system
- vii) Starting system
- viii) Lighting system
- ix) Electrical Accessories
- x) Electronic ignition system

### **3. Garage Equipment**

- i) General Tools
- ii) Measuring Tools
- iii) General equipment
- iv) Tuning and testing equipment
- v) Engine repair tools
- vi) Electrical Repair Equipment
- vii) Reconditioning equipment for chassis and body
- viii) Engine reconditioning and testing equipment

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#### 4. Automotive Materials

- i) Ferrous metals and alloys
- ii) Non-Ferrous metals and alloys
- iii) Identification tests for various metals
- iv) Plastics
- v) Heat insulation materials
- vi) Sound insulation materials
- vii) Fabrication materials
- viii) Electrical insulation materials
- ix) Lubricants, oils and additives
- x) Commercial availability of material

#### 5. I.C. Engines

- i) Thermodynamic properties
- ii) Gas laws
- iii) Laws of thermodynamics
- iv) Therodynamic processes
- v) Air Cycles
- vi) Fuels and combustion
- vii) Air compressors
- viii) IC engine testing
- ix) Heat transfer
- x) Refrigeration and air conditioning
- xi) Constructional details of Automotive engines
- xii) Fuel supply in petrol and diesel engines
- xiii) Cooling and lubricating system
- xiv) I C engine testing
- xv) Performance of engines

#### 6. Chassis and Body

- i) Layout of conventional type of chassis
  - ii) Constructional details of car body
  - iii) Materials used for various types of frames
  - iv) Body components
  - v) Interior body dressing components
  - vi) Body upholstery
  - vii) Body streamlining
  - viii) Protective coating
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## 7. Transmission, Steering, Suspension and Braking

- i) Function and various types of clutch
- ii) Function and various types of manual transmission
- iii) Function and various types of Automatic transmission
- iv) Final drive
- v) Various types of steering and their linkages, power steering
- vi) Various types of wheels and tyres
- vii) Braking system
- viii) Power braking
- ix) Trouble shooting for transmission, steering and braking
- x) Suspension system

## 8. Hydraulics

- i) Properties of fluids
- ii) Fluid statics
- iii) Flow of fluids
- iv) Hydraulic devices

## 9. Motor vehicle Act

- i) Salient features of Motor Vehicle Act, 1988.
- ii) Inspection and fitness of vehicles
- iii) Insurance of vehicles
- iv) Driving and road safety

## 10. Transport Management

- i) Modes of road transport
  - ii) Service station and its function
  - iii) Accounts and books in a service station
  - iv) Structure of fleet organization
  - v) State transport
  - vi) Road worthiness requirement
  - vii) Causes and prevention of road accidents
  - viii) Analysis of accidents
  - ix) Economy of replacement of old vehicles
  - x) Assessment of used vehicles
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- xi) Training of drivers and mechanics
- xii) Structure and formalities relating to calculating and paying the relevant taxes

### **11. Automotive pollution control**

- i) Engine exhaust pollutants
- ii) Sources of automotive emission
- iii) Emission control
- iv) Emission control by exhaust gas treatment
- v) Positive crankcase ventilation
- vi) Evaporative loss control
- vii) Emission measurements
- viii) New technologies for emission control
- ix) Alternating fuels of Automobiles
- x) Bharat standards

### **12. Industrial Management**

- i) Principles of management
- ii) Human resource management
- iii) Wages and incentives
- iv) Professional ethics
- v) Industrial relations
- vi) Environmental engineering
- vii) Material management
- viii) Estimating and costing
- ix) Elements of cost and estimation
- x) Incentives

  
(Raj Mohammad Malik) KAS  
Deputy Secretary to Government  
Transport Department.

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