

### SECTION-C

**Note:** Long answer type questions. Attempt any one questions out of two questions. (1x10=10)

- Q.19 Describe Davis steering Mechanism with a neat Diagram. Also write its advantages and disadvantages over Ackerman's Steering Mechanism.
- Q.20 With a neat sketch describe Vacuum brake system. Give its applications advantages and disadvantages.

No. of Printed Pages : 4

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### 3rd Sem / Branch : DVOC Sub.: Motor Vehicle Technology II

Time : 3Hrs.

M.M. : 50

### SECTION-A

**Note:** Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1 Type of vehicle construction (as of a an automobile) in which the body is integral with the chassis
- a) Monocouple
  - b) Conventional Chassis
  - c) Ladder Frame Chassis
  - d) X-Frame Chassis
- Q.2 Head Restraints are
- a) Automobile Style Feature
  - b) Automobile Safety Feature
  - c) Automobile Performance feature
  - d) None of these
- Q.3 Which of these were or are used in automobiles to provide suspension?
- a) Leaf springs
  - b) Coil springs
  - c) Torsion bars
  - d) All of these

- Q.4 Name the commonly used Steering mechanism in Automobiles:
- Davis Steering Mechanism
  - Ackerman's Steering System
  - Both the above
  - None of these
- Q.5 The springs used in trucks are
- Leaf spring
  - Coil spring
  - Torsion Bar
  - Mc pherson strut
- Q.6 The angle responsible for developing self restoring torque in the steering mechanism
- KPI Angle
  - Camber angle
  - Castor Angle
  - Toe out
- Q.7 Drum brakes are generally used in the \_\_\_\_\_ of cars
- Front wheels
  - Rear wheels
  - Both
  - None of the above
- Q.8 What is the function of Anti-lock brake system ABS?
- It reduces the brake pad wear
  - It reduces the stopping distance
  - It avoids the skidding of the vehicle
  - It reduces cost of braking system

- Q.9 Exhaust Gas recirculation in the engines is used to control
- Oxides of Nitrogen
  - Particulate Matter
  - Carbon Dioxide
  - Carbon Monoxide
- Q.10 Latest Pollution Emission Norms for Cars in India
- BS-III
  - BS-IV
  - BS-VI
  - Euro V

### SECTION-B

**Note:** Short Answer Questions. Attempt any six questions out of eight questions. (6x5=30)

- Q.11 What is lock to lock angle of the steering? Explain.
- Q.12 Describe the term tuning Radius. Also explain its significance.
- Q.13 Name five types of suspension system in the automobile.
- Q.14 Define and describe the term KPI.
- Q.15 Explain Maruti Steering System.
- Q.16 Explain the effect of weight transfer during Braking.
- Q.17 Describe Brake Defects, their causes and Remedies.
- Q.18 Explain Automobile pollution control by Exhaust gas recirculation.