

2019

Part – II

**AUTOMOBILE MAINTENANCE**

**(Major)**

**Paper – IV**

*Full Marks – 80*

*Time : 3 Hours*

*The figures in the right-hand margin indicate marks.  
Candidates are required to give their answers in  
their own words as far as practicable.*

Answer Question No. 1 and other **six** questions taking one question from each group.

1. Answer any **ten** questions : 2×10
- (a) What are the important components of drum brake ?
  - (b) What is the function of chassis dynamometer?
  - (c) What is meant by category "L" of a vehicle?
  - (d) What is brake power? Write its expression.
  - (e) Why water cannot be used as a brake fluid?

- (f) Write clearly the specification of tyres.
- (g) What do you mean by 'Aspect ratio' of a tyre?
- (h) What is semi-integral frame ?
- (i) What is a de Dion axle?
- (j) Explain the term "clearance volume" of an auto engine.
- (k) What is a creeper ?
- (l) What happens when the oil leaks into the break drum and wets the shoe linings?

### **GROUP – A**

2. Describe the details the types of tyres to be used in automobiles. Writing clearly the specification of the tyres used. Neat diagram is to be drawn.

5+5

3. Discuss the classification of breaks from different considerations. Explain the function of a brake shoe adjuster. Describe in details the construction and working of wheel cylinder ratchet type adjuster.

3+2+5

4. Write short notes on ;

$2\frac{1}{2} \times 4$

(a) Welding and motor body repair

(b) Important component of drum break

- (c) Troubles generally meet in breaking system
- (d) Loads on the frame of an auto mobile

### GROUP – B

5. (a) Why should you cover the carburettor before decarburizing ? What is 'plastigage' ?
- (b) Write down the procedures to be adopted for decarbonising different parts of an engine. (2+2)+6
6. Discuss the proper location and scientific layout of servicing stations for automobiles. Describe the steps of servicing the breaking system. 5+5
7. (a) What are the different types of cooling systems of an engine?
- (b) Describe, in details, the procedures advopted for inspecting and repairing the cooling system of an engine. 5+5

### GROUP – C

8. (a) Name different types of traffic signs.
- (b) "The Motor Vehicle Act regarding pollution control is not upto the mark" – discuss.
- (c) Describe briefly main legal provisions regarding "Claims for Compensation". 2+5+3

9. Write down short notes on any **two** : 5×2
- (a) Road testing of a vehicle
  - (b) Inspection card
  - (c) Inspection and repair of a vehicle
10. (a) Discuss insurance against “Third Party Right”. How to claim for compensation?
- (b) Describe how a fault could be diagnosed. 5+5
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