

B.E. Degree Examination, December 2020  
Seventh Semester  
**AE16702 - VEHICLE MAINTENANCE**  
(Regulation 2016)

Time: Three hours

Maximum : 80 Marks

Answer **ALL** questions

**PART A - (8 X 2 = 16 marks)**

1. Use thread inserts to repair damaged  
(a) external threads (b) studs (c) internal threads (d) nuts
2. Technician A says in an engine with one intake and one exhaust valve, the larger valve is the exhaust valve. Technician B says the larger valve is the intake valve. Who is right?  
(a) A only (b) B only (c) both A and B (d) neither A nor B
3. Before working on the clutch or brakes, use a special vacuum cleaner with a HEPA filter to  
a) remove the asbestos dust  
b) blow the dust off the parts  
c) purify the surrounding air  
d) remove the oil
4. Leaf springs absorb shocks by  
(A) bending (B) twisting (C) compression (D) tension
5. Discuss the importance of vehicle insurance.
6. Discuss the importance of air restriction indicator in intake system.
7. What would the result be if you don't set the free play in steering wheel to right value?
8. Sketch the tyre rotation for rear wheel drive vehicles.

**PART B - (4 X 16 = 64 marks)**

9. (a) Why preventive maintenance is required? Classify the different methods of preventive maintenance employed in an authorized car service station. (16)

**(OR)**

- (b) Discuss the different classes of fires and the fire extinguishers used to prevent the fire accidents. (16)
  10. (a) What actions would you take to ensure the proper working of engine cooling system? (16)
- (OR)**
- (b) A Faulty Fuel injection system in a vehicle is identified. Explain the procedure to service the faulty electronic fuel injection system. (16)

11. (a) Discuss the most frequent complaints encountered in manual transmission with their possible causes and corrective actions in detail. ( 16 )

**(OR)**

- (b) Discuss the service procedure for constant velocity universal joints. ( 16 )

12. (a) The brake pedal travel in a passenger car was found to be more spongy. Identify the root cause and explain the procedure to solve the problems with neat sketches. ( 16 )

**(OR)**

- (b) Identify the possible causes for the tyre wear and explain the measures to improve the performance. ( 16 )