



KARUNYA UNIVERSITY
SCHOOL OF MECHANICAL SCIENCES
ME276 – MODERN VEHICLE TECHNOLOGY
MODEL QUESTION PAPER

PART – A [1 x 10 = 10 Marks]

1. Write any one firing order for six cylinder engine.
2. Write down two materials used for coatings on piston rings.
3. Write down two factors affecting the close contact between tyre and road surface.
4. Name the types of unbalances caused in wheels.
5. What is the main function of clutch?
6. Name two types of brakes using in automobiles.
7. What is the function of gear box?
8. Write down advantage of four wheel drive.
9. Name one type of sensor using for temperature measurement.
10. What is multiplexing?

PART – B [3 X 5 = 15 Marks]

11. Explain splash lubricating system with the help of neat diagram.
12. How you can specify a tyre? Define each term using for specification of tyres.
13. Describe about centrifugal clutch.
14. How a differential is helping the vehicle to trace a curved path?
15. Explain Variable Timing Ignition.

PART – C

[EACH QUESTION CARRIES 15 MARKS]

16. Explain about fuel supply system using in SI engines and CI engines with the help of diagrams.

OR

17. Enumerate the main components of an automobile and explain the functions of each.

18. What is principle of steering? Explain centre point steering and power steering.

OR

19. What is the purpose of suspension system in automobiles? Explain different types of suspension systems.

20. What is the need of clutch in automobiles? Explain about single and multiple disc clutches.

OR

21. Explain about mechanical, hydraulic and pneumatic brakes.

22. Explain about sliding mesh, constant mesh and synchromesh gear boxes.

OR

23. Explain about Hotchkiss Drive and Torque Tube Drive. Compare them for their construction, merits and demerits.

24. Explain the following,

- i. MPFI
- ii. GDI
- iii. CRDI

OR

25. Explain about sensors using for speed, throttle position and crank shaft position with the help of neat diagram.