

April 2016

Time – Three hours
(Maximum Marks: 75)

[N.B: (1) Answer any fifteen questions in PART – A and division (A) or division (B) of each question in PART – B.

(2) Each question carries 1 (one) mark in PART – A and 12 (twelve) marks in PART – B.]

PART – A

1. What is the function of connecting rod?
2. What is the purpose of thermostat used in cooling system?
3. What is the purpose of lubricating system?
4. What are the types of pumps used in lubrication system?
5. What is detonation and knocking?
6. What is carburetion?
7. What is governing?
8. What is MPFI system?
9. What are the functions of transmission system?
10. What is clutch?
11. What are the types of forces acting in rear axles?
12. What is a non-slip differential?
13. What are the types of stub axle?
14. Write the function of suspension system.
15. What is shock absorber?
16. What is the function of tyre?
17. How the batteries are rated?
18. Expand (i)PCV (ii)VRS.
19. What are the methods of reducing emission?
20. What is the use of suppressor?

[Turn over.....

PART - B

- | | | Marks |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| 21. | (A) (i) Explain the various types of cylinder liners.
(ii) Explain the petrol lubricating system. | 6
6 |
| | (Or) | |
| | (B) Briefly explain with neat sketch, the construction and working of water pump circulation cooling system. | 12 |
| 22. | (A) (i) What do you mean by diesel knock? Explain the various methods used to prevent diesel knock.
(ii) Draw the pintaux and state its merits. | 6
6 |
| | (Or) | |
| | (B) Describe with a neat sketch, the construction and operation of mechanical governor. | 12 |
| 23. | (A) (i) Sketch and explain the arrangement of rear engine rear drive transmission.
(ii) Explain about torque tube drive. | 6
6 |
| | (Or) | |
| | (B) Briefly explain Hotchkiss drive with a neat sketch. | 12 |
| 24. | (A) (i) Briefly describe about air suspension.
(ii) Give the layout of hydraulic brake system and explain its functions. | 6
6 |
| | (Or) | |
| | (B) (i) Mention any two troubles in the steering system and give the causes.
(ii) Briefly explain different types of wheel and tyres. | 6
6 |
| 25. | (A) With the help of circuit diagram, explain the working of battery coil ignition system. | 12 |
| | (Or) | |
| | (B) Describe the positive crank case ventilation (PCV) with a neat sketch. | 12 |
