

April 2017

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 are the various types of compression rings?
2. What is the function of crankcase?
3. Define ignition delay.
4. Write the causes of low oil pressure in lubrication system.
5. What are the types of fuel used in automobiles?
6. What is knocking?
7. What is carburetion?
8. What is CRDI?
9. Write the types of transmission system.
10. What are the resistant offered to the motion of vehicle?
11. What is slip joint?
12. What is the purpose of radius rod?
13. What are the types of stub axle?
14. List three wheel alignment angles that are eligible.
15. Name any two basic types of power steering.
16. What is tubeless tyre?
17. Write the various tests carried out to check the battery.
18. What are the types of drive arrangements used in starting system?
19. What is wiper?
20. What is PCV? What purpose does it serve?

[Turn over....

PART - B

21. (A) (i) State the functions of piston rings and state the materials out of which piston rings are made.
(ii) Explain about the technique of piston lubrication.

(Or)

- (B) Explain about vapour recovery cooling system with sketch. Write its merits.

22. (A) (i) Give the sketch of mechanical fuel pump and name the parts?
(ii) Explain any one type of diesel fuel nozzle with sketch.

(Or)

- (B) With suitable sketch, explain the working of idle and acceleration circuit of the Solex carburettor.

23. (A) (i) What is clutch slip? State the reason for it.
(ii) Sketch and explain the three quarter floating axle.

(Or)

- (B) Draw a neat sketch of constant mesh three speed gear box and explain the functions.

24. (A) (i) Explain the Ackerman principle of steering with simple line diagram.
(ii) Explain the self energizing action of brake shoes.

(Or)

- (B) Explain with a neat sketch, the construction and operation of re-circulation ball type steering gear box.

25. (A) (i) Explain the various methods of battery charging.
(ii) Write short notes on catalytic converter.

(Or)

- (B) Explain with a neat sketch, the construction and operation of Bendix drive mechanism.
