

**812**

Register No.:

**June 2022**

Time – Three hours  
(Maximum Marks: 75)

- [N.B: (1) Q.No. 8 in PART – A and Q.No. 16 in PART – B are compulsory.  
Answer any FOUR questions from the remaining in each PART- A  
and PART – B.  
(2) Answer division (a) or division (b) of each question in PART – C.  
(3) Each question carries 2 marks in PART – A, 3 marks in Part – B  
and 10 marks in PART – C.]

PART – A

1. Define: Vacuum efficiency.
2. Define: Refrigerating effect.
3. What is clearance volume?
4. Define: Volumetric efficiency.
5. What is the purpose of thermostat?
6. State the advantages of Air suspension.
7. What is the use of catalytic converter?
8. What is MPFI system?

PART – B

9. Compare the jet condensers with surface condensers.
10. Define: (1) Mechanical efficiency (2) Brake thermal efficiency.
11. What are the requirements of good lubrication oil?
12. Write the various forces acting in rear axles.
13. Describe about the rear end suspension system.
14. Explain in detail the high discharge test.
15. State the advantages of sealed beam head light.
16. What are the defects of simple carburettor?

[Turn over.....

PART - C

17. (a) Draw the layout of thermal power plant and list the components. List its merits and demerits.

(Or)

- (b) Explain with line diagram the working of vapour absorption refrigeration system.

18. (a) With a neat sketch, explain the working of a four stroke petrol engine.

(Or)

- (b) Explain the method of measuring brake power by using rope brake dynamometer with neat sketch.

19. (a) With suitable line diagram explain the construction and working of full pressure lubrication system.

(Or)

- (b) Explain with the neat sketch of Idle and acceleration circuits of the solex carburettor.

20. (a) Describe with a neat sketch the construction and operation of a constant mesh-three speed gear box.

(Or)

- (b) Explain the construction and working of telescopic type shock absorber.

21. (a) With suitable sketch explain the construction and working of an electronic ignition system.

(Or)

- (b) Explain the positive crankcase ventilation (PCV).

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