

October 2019

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. State the uses of cyclone separator.
2. Define the COP of a refrigerator.
3. Write down two differences between petrol and diesel engines.
4. State the advantages of using anti lock braking system.
5. List any four types of cooling systems.
6. State the advantages of four wheel drive.
7. State two troubles that occur in differentials.
8. State the function of a flywheel.

PART - B

9. How are condensers classified?
10. State any two troubles, causes and remedies of lubricating system.
11. List a few material used for construction of cylinder block and connecting rod.
12. State the function of fuel filters and air cleaners.
13. State the main functions and components of a clutch.
14. Write a short note on Hotch kiss drive.
15. What is meant by brake bleeding?
16. List the important parts of battery coil ignition system.

[Turn over.....

PART - C

17. (a) Draw the layout of thermal power plant and list the important components. List its merits and demerits.
(Or)
(b) Explain the working of a vapour compression refrigeration system with a neat sketch.
18. (a) (i) Write down the differences between four stroke and two stroke petrol engines.
(ii) List the important components of an IC engine.
(Or)
(b) Describe the procedure for conducting Morse test.
19. (a) With a neat sketch, explain the working of a full pressure lubrication system.
(Or)
(b) (i) Explain the construction and working of SU electrical fuel pump.
(ii) Write short note on PGMFI.
20. (a) Explain the working of semi floating and full floating rear axles with sketches.
(Or)
(b) State the purpose of gear box. Explain the working of sliding mesh gear box.
21. (a) (i) Describe the construction of lead acid battery with a simple sketch.
(ii) Describe the construction and working of high tension magneto ignition system.
(Or)
(b) Write down the source of pollutants and pollution control techniques for petrol and diesel engines.
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