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OR

- 8 a. List out the necessity of cooling. Explain thermosyphoon cooling system with a neat sketch. (10 Marks)
- b. i) Mention the properties of coolants. (10 Marks)
ii) Write the comparison between air cooling and water cooling.

Module-5

- 9 a. Discuss the necessity of lubricating systems. (06 Marks)
- b. With a neat sketch, explain the pressure type of wet sump lubrication system for four stroke engine. Also list the properties of lubricating oil. (14 Marks)

OR

- 10 a. Describe the splash system of wet sump lubrication system with a neat sketch. Also mention the grades of lubrication oil. (10 Marks)
- b. Define and differentiate between :
- i) Boundary Lubrication
ii) Hydrodynamic Lubrication
iii) Elasto hydrodynamics Lubrication. (10 Marks)

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