



NATIONAL INSTITUTE OF TECHNOLOGY: TIRUCHIRAPPALLI – 620 015
DEPARTMENT OF MECHANICAL ENGINEERING

Class test 1

11-10-2023

Degree : B.Tech. – Electronics and Communication Engineering, I Semester, Section-B

Sub. Code & Title : MEIR11, Basics of Mechanical Engineering

Time Allowed : 1 Hour

Max. Marks: 20

Answer All Questions

1. Define compression ratio, clearance volume, and swept volume. [1½]
2. (a) Write a few comparisons between the impulse and reaction turbines. [2]
(b) Classifications of power plants. [2]
3. Explain the functions of the clutch, gearbox, differential, steering, propeller shaft, brakes, and suspension. [3½]
4. Explain the working principle of a 4-stroke SI engine with neat sketch for each stroke. [6]
5. Explain the working principle of combined gas and steam turbine power plant with neat sketch. [5]

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