

## Unit - 1

- Q1. Engine (Numerical) (Performance parameters)
- Q2. Turbine (De-Laval / Francis)
- Q3. EV / Hybrid Vehicles Architecture (or)  
Block diagram
- Q4. Fridge / AC working

## Unit - 2

- Q1. Stress - Strain Curve (Mild Steel / Aluminium)
- Q2. Smart Materials (Read all other engg. materials if possible)
- Q3. Hooke's Law Numericals
- Q4. Power Transmission Numericals

## Unit - 3

- Q1. Pattern Allowances / Types of Patterns
  - Q2. Welding (Electric Arc / Gas / Types of Flames)
  - Q3. Sand Casting Procedure
  - Q4. Casting Defects
  - Q5. Extrusion / Soldering / Threads / Rivets
  - Q6. Centrifugal Casting / Precision Investment Casting
  - Q7. Forming (HW & CW) / Rolling / Forging / Brazing / Wire Drawing / Sheet Metal / Joining
    - ↳ This is lit. imp.
- High Priority
- Low Priority

## Unit - 4

- Q1. Milling
- Q2. Types of Joints
- Q3. Control Systems (Open & Closed Loop) / Industry 4.0
- Q4. Lathe Operations / Taper Turning / Drilling