1st Internal Examination

Turbomachines

Institute of Engineering, Pulchowk Campus, Lalitpur

Full Marks: 15 Time: 45 mins

Pass Marks: 6

Attempt All Questions

1. Why are turbine fan blades twisted? Explain using velocity diagram at three span-wise direction. [3]
2. Explain with a schematic diagram how turbine shafts are loaded. Also, explain how the forces are balanced in turbine shaft. [3]
3. Explain how low and high pressure bleed air is used for high pressure turbine cooling? Use schematic diagram to show how cooling is done. [3]
4. Draw radial temperature distribution on a high pressure turbine blades. Explain how this temperature profile is achieved. [3]
5. Draw schematic diagram of turbojet engine. Also explain what is repetitive stage and its importance in turbine design. [3]

\*\*\*\*\* Best of Luck \*\*\*\*\*

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