Total No. of Questions : 8] [Total No. of Printed Pages :2

Roll No ....

MMTP-302(A)
M.E./M.Tech. III Semester
Examination, December 2016
Gas Flow Through Turbo Machines (Elective-II)
Time : Three Hours

Maximum Marks : 70

Note : i) Solve any five questions.

ii) All questions carry equal marks.

1. Write assumption and drive Bernoulli's equation for incompressible flow.

2. Explain the development of aerofoil-lift and drag also explain pressure distribution over aerofoil bleeding.

3. Drive Navier's-Stroke equation for steady flow problem.

4. Drive Relation between Prandtl Meyer and Rankine Hugoniot Relation.

5. What is dimensional Analysis and write significant of various Dimensional Number?

6. Drive Isentropic flow relation for a one-dimensional steady flow field.

7. Drive Radial equilibrium equation flow through Turbo machinery.

8. Write short notes on following (Any four) :
   a) Doublet
   b) Kutta-Joukowski profile
   c) Surging and chocking
   d) Strength of shock wave
   e) Fanno line and Rayleigh line flows

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