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Roll No

CM-405 (GS)
B.E. IV Semester Examination, June 2020
Grading System (GS)
Fluid Mechanics
Time : Three Hours

Maximum Marks : 70

- Note:** i) Attempt any five questions.
ii) All questions carry equal marks.
iii) Draw neat sketch and assume suitable data where you required.

1. What is the principle of dimensional Homogeneity? Explain the Buckingham Pi-theorem.
2. State and explain equation of continuity for incompressible fluid and compressible fluid.
3. What is Manometer? How they are classified.
4. Define a centrifugal pump. Explain the working of a single stage centrifugal pump with sketches.
5. What is the difference between the laminar and turbulent flow? How to differential using a mathematical number?
6. Explain the Bernoulli's equation with suitable example.
7. What is an orifice? Obtain an expression for discharge through a large rectangular orifice.

OR

Derive an expression for discharge over a rectangular notch.

8. What do you mean by manometric efficiency, mechanical efficiency and overall efficiency of a centrifugal pump?

OR

Why are centrifugal pump used in series and in parallel?
