

1. Explain the Types of fluid flow, steady and unsteady, uniform and non-uniform laminar and Turbulent ?
2. Define continuity Equation of flow ? and Rate of Flow
3. Explain Bernoulli's theorem with Statement and Proof ?
4. Explanation of Bernoulli's theorem's Applications ?
5. Discharge measurement of fluid with the help of venturi-meter ?
6. Explain the fluid discharge with the help of orifice meter, and Pitot-tube ?
7. Write a Limitations of "Bernoulli's principle" ?
8. Write a units of fluid flow (like steady-unsteady laminar-turbulent and uniform and non-uniform flow) ?
9. Explain the potential Energy, Kinematic Energy, internal Energy and Total Head of flowing fluid ?
10. Least count of venturi-meter ?

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HYDRAULICS AND PNEUMATICS

ASSIGNMENT - ME - II Year

- Q.1. Define the following :-
a) Pipe flow (b) wetted Perimeter (c) Hydraulic mean depth
d) Hydraulic gradient (e) LOSS of head due to junction.
- Q.2. Explanation / Proov the chezy's equation and Darcy's equation for head Loss?
- Q.3. Define the Reynold's Number and its effect on pipe junction
- Q.4. Explain the following, given below. ?
a) Power developed (b) siphon (c) water hammer
d) SURGE TANK with concept
- Q.5. Losses of head in pipes due to :?
a) sudden contraction (b) sudden enlargement.
c) change of direction of flow.
- Q.6. Discribe the following, given below ?
a) operation of hydraulic systems and Application.
b) Hydraulic Ram & Jack
- Q.7. Explain the hydraulic brake system ?
- Q.8. Discribe the hydraulic door closer system ?
- Q.9. Explain Hydraulic press system ?

HYDRAULICS & PNEUMATICS

Assignment - 01

Branch:- Mechanical Engineering

Year:- II year

- Q1. द्रव की मात्र प्रकार की विभिन्न मात्रको सहित लिखो।
- Q2. U-tube manometer एवं Differential Manometer को चित्र सहित कार्य कीजिये।
- Q3. निम्नलिखित द्रव की परिभाषाओं को समझाओ एवं सभी द्रव में गणना भी स्थापित कीजिये।
 - a. Atmospheric pressure
 - b. Gauge pressure
 - c. Absolute pressure
 - d. Vacuum pressure
- Q4. Pressure measuring device से आप क्या समझते हैं किन्ही एक pressure measuring device को चित्र सहित समझाओ।
- Q5. निम्नलिखित fluid flow में अन्तर समझाओ।
 - a. Steady and unsteady
 - b. Uniform and Non uniform
 - c. Laminar and Turbulent
- Q6. Continuity equation से आप क्या समझते हैं? Flow of fluid में equation किम तरह उपयोगी है।
- Q7. Bernoulli's Theorem क्या है और इसकी applications समझाओ।
- Q8. Discharge measurement करने के विभिन्न equipment के नाम बताओ और किन्ही एक measuring device को चित्र सहित समझाओ।
- Q9. Bernoulli's Theorem की limitation बताओ।