

Unit 2 - Week 0: Prerequisite

Course outline

How does an NPTEL online course work?

Week 0: Prerequisite

Quiz : Assignment 0

Week 1: Review Concepts of Fluid Mechanics and Thermodynamics

Week 2: Wave Propagation in Compressible Medium

Week 3: Quasi-One Dimensional Isentropic Flow

Week 4: Normal Shock Waves

Week 5: Expansion Waves and Oblique Shocks

Week 6: Interaction of Shocks and Expansion Waves

Week 7: Compressible Flow with Friction and Heat Transfer

Week 8: Measurement Diagnostics and Experimental Facilities for Compressible Flow

Live Session

Text Transcripts

Practice Questions for Examination

Assignment 0

The due date for submitting this assignment has passed. As per our records you have not submitted this assignment.

Due on 2020-09-14, 23:59 IST.

Based on the below question, answer [Question 1](#) & [Question 2](#):

The specific weight (N/m^3) and specific gravity for 5 litre of liquid weighing 10 N, are _____ and _____, respectively.

1) Enter the value of specific weight (N/m^3)

No, the answer is incorrect.
Score: 0

Accepted Answers:
(Type: Numeric) 2000

0.5 points

2) Enter the value of specific gravity

No, the answer is incorrect.
Score: 0

Accepted Answers:
(Type: Numeric) 0.2

0.5 points

3) A pan containing hot water at $30^\circ C$ loses 1.5 kJ of heat to atmosphere. The change in entropy (J/K) of water is _____.

No, the answer is incorrect.
Score: 0

Accepted Answers:
(Type: Numeric) -4.95

1 point

4) The energy interaction responsible for entropy transfer is _____

No, the answer is incorrect.
Score: 0

Accepted Answers:
(Type: String) Heat

1 point

5) The random molecular motion constantly occurs, when there is a variable mixture of two or more species of fluid. This process is best described as,

- (A) convection
 (B) diffusion
 (C) osmosis
 (D) advection

No, the answer is incorrect.
Score: 0

Accepted Answers:
(B) diffusion

1 point

6) The lines that are drawn tangent at a given location of fluid flow path is known as,

- (A) streak lines
 (B) path lines
 (C) stream lines
 (D) none of these

No, the answer is incorrect.
Score: 0

Accepted Answers:
(C) stream lines

1 point

7) Based on the thermodynamic definition, which of the followings parameter CAN NOT of considered as intensive property?

- (A) Temperature
 (B) Pressure
 (C) Density
 (D) Mass

No, the answer is incorrect.
Score: 0

Accepted Answers:
(D) Mass

1 point

8) Which of the following statements is the INCORRECT for gases?

- (A) The density of a gas is constant as long as its temperature remains constant.
 (B) Pressure must be exerted on a sample of a gas in order to confine it.
 (C) Gases diffuse into each other and mix immediately when put into the same container.
 (D) Gases can be expanded without limit.

No, the answer is incorrect.
Score: 0

Accepted Answers:
(A) The density of a gas is constant as long as its temperature remains constant.

1 point

9) Pascal's law is applicable to fluids, which is incompressible.

- TRUE
 FALSE

No, the answer is incorrect.
Score: 0

Accepted Answers:
TRUE

1 point

10) A thermodynamic system in which both mass and energy interaction is possible, is known as closed system.

- TRUE
 FALSE

No, the answer is incorrect.
Score: 0

Accepted Answers:
FALSE

1 point

11) A thermodynamic quantity equivalent to total heat content is known as enthalpy.

- TRUE
 FALSE

No, the answer is incorrect.
Score: 0

Accepted Answers:
TRUE

1 point