

Course outline

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Week 9 : Assignment 9

The due date for submitting this assignment has passed.

Due on 2021-09-29, 23:59 IST.

As per our records you have not submitted this assignment.

 1) **Find out the correct statement** 2 points

- (A) Strength of internal potential energy for a solid stationary object is ≈ 0 .
- (B) Strength of internal potential energy $>$ strength of internal kinetic energy in gas.
- (C) Strength of internal potential energy of liquid $>$ Strength of internal potential energy of solids.
- (D) Strength of internal potential energy of solid $>$ Strength of internal potential energy of liquid.

- A)
- B)
- C)
- D)

No, the answer is incorrect.

Score: 0

Accepted Answers:

D)

 2) **Pick up the wrong statement** 2 points

- (A) Heat dissipation requires a temperature gradient.
- (B) Energy generated in a system is non-zero only if it involves a nuclear reaction.
- (C) For a system to do work on the surrounding, the system must be able to expand.
- (D) A temperature gradient is mandatory for heat transfer.

- A)
- B)
- C)
- D)

No, the answer is incorrect.

Score: 0

Accepted Answers:

A)

 3) **Which of the following will be inexact differential?** 2 points

- (A) Enthalpy
- (B) Internal energy
- (C) Heat
- (D) Temperature

- A)
- B)
- C)
- D)

No, the answer is incorrect.

Score: 0

Accepted Answers:

C)

 4) **For most of the problems in thermodynamics we consider a frictionless piston cylinder. The reason for this is** 2 points

- (A) A frictionless piston cylinder always leads to a reversible process.
- (B) A frictionless piston cylinder is always insulated.
- (C) A frictionless piston cylinder ensures heat transfer is zero.
- (D) A frictionless piston cylinder ensures heat dissipation is zero.

- A)
- B)
- C)
- D)

No, the answer is incorrect.

Score: 0

Accepted Answers:

D)

 5) **When 1kg of ice at -30°C heated to steam at 100°C and 1 atm pressure. How many physical parameters would be necessary to perform the calculation?** 2 points

- (A) 5
- (B) 4
- (C) 3
- (D) 6

- A)
- B)
- C)
- D)

No, the answer is incorrect.

Score: 0

Accepted Answers:

B)

 6) **For an ideal gas** 2 points

- (A) The internal kinetic energy of the system = internal potential energy.
- (B) The internal energy of the system comprises only internal potential energy.
- (C) The internal energy of the system comprises only internal kinetic energy.
- (D) The internal energy of the system comprises only the internal potential energy of the system.

- A)
- B)
- C)
- D)

No, the answer is incorrect.

Score: 0

Accepted Answers:

C)

 7) **The most likely candidate for the ideal gas is** 2 points

- (A) Monoatomic elemental gases (like Neon).
- (B) Diatomic elemental gases (like O_2).
- (C) Compounds that are gases (like CO_2).
- (D) All of the above.

- A)
- B)
- C)
- D)

No, the answer is incorrect.

Score: 0

Accepted Answers:

A)

 8) **Kopp rule is related to** 2 points

- (A) Specific heat capacity of gaseous compounds.
- (B) Specific heat capacity of solid compounds.
- (C) Specific heat capacity of solid elements.
- (D) Latent heat of vaporization.

- A)
- B)
- C)
- D)

No, the answer is incorrect.

Score: 0

Accepted Answers:

B)

 9) **Which of the following is not an example of phase transformation?** 2 points

- (A) Melting of ice.
- (B) Eutectic transformation.
- (C) Ferromagnetic to paramagnetic transition
- (D) Eutectoid transformation

- A)
- B)
- C)
- D)

No, the answer is incorrect.

Score: 0

Accepted Answers:

A)

 10) **By increasing the temperature of a liquid,** 2 points

- (A) Its vapour pressure decreases.
- (B) Its Boiling point increases.
- (C) Its Boiling point reduces.
- (D) Its vapour pressure increases.

- A)
- B)
- C)
- D)

No, the answer is incorrect.

Score: 0

Accepted Answers:

D)