

1. Which one is not state function
- A. Internal energy B. Enthalpy
- C. Gibbs free energy D. Work

Answer: Option D

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2. If ΔH value is less than zero than reaction will be
- A. Exothermic B. Endothermic
- C. May or may not be Exothermic or Endothermic D. None of these

Answer: Option A

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3. If internal energy of the system is increased
- A. Change in state of the system is increased B. Temperature of the system may rise
- C. Chemical reaction may take place D. All

Answer: Option D

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4. Which is true for a spontaneous endothermic process?
- A. $\Delta H < 0$ B. $\Delta G < 0$
- C. $\Delta S < 0$ D. $\Delta G > 0$

Answer: Option B

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5. A reaction has values of ΔH and ΔS which are both positive. The reaction
- A. Is spontaneous B. Spontaneity is temperature dependent
- C. Has an increasing free energy D. Is non-spontaneous

Answer: Option D

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6. _____ is study about energy of a chemical system
- | | |
|-----------------------------|--------------------------|
| <u>A.</u> thermochemistry | <u>B.</u> thermodynamics |
| <u>C.</u> chemical kinetics | <u>D.</u> stoichiometry |

Answer: Option A

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7. The environment in which a system is studied is
- | | |
|--------------------------|-----------------|
| <u>A.</u> State function | <u>B.</u> phase |
| <u>C.</u> surrounding | <u>D.</u> state |

Answer: Option C

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8. Unit of heat in SI system is
- | | |
|---------------|----------------|
| <u>A.</u> J | <u>B.</u> KCal |
| <u>C.</u> Cal | <u>D.</u> GJ |

Answer: Option A

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9. Anything which depends upon initial and final state of a system is
- | | |
|--------------------------|-----------------------|
| <u>A.</u> environment | <u>B.</u> surrounding |
| <u>C.</u> state function | <u>D.</u> enthalpy |

Answer: Option C

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10. Total energy of a system is
- | | |
|-----------------------------|-----------------------------------|
| <u>A.</u> P.E + K.E | <u>B.</u> P.E + heat energy |
| <u>C.</u> K.E + heat energy | <u>D.</u> P.E + mechanical energy |

Answer: Option A