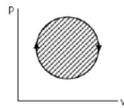


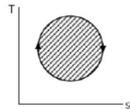
Chapter 7
Thermodynamics

1. Which of the following are state function?
(A) Enthalpy (H)
(B) Internal energy (U)
(C) Work done (w)
(D) Entropy (S)
2. Which among the following statements are CORRECT?
(A) Energy is an extensive property
(B) Specific energy is an extensive property
(C) Energy is a point function
(D) Heat capacity is an extensive property

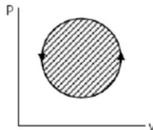
3. The following four figure has been drawn to represent a fictitious thermodynamics cycle on the p-v and T-s planes. According to first law of thermodynamics, equal areas are enclosed by
(A)



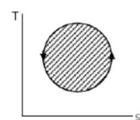
(B)



(C)



(D)



4. Which of the following are TRUE?
(A) work is a high grade energy
(B) heat and work are completely interchangeable
(C) heat is a low grade energy
(D) complete conversion of low grade energy into high grade energy in a cycle is impossible
5. In a heat engine cycle, which of the following process occurs?
(A) heat is transferred from furnace to boiler
(B) work is produced in turbine rotor

- (C) steam is condensed in condenser
(D) electron move in accelerator
6. In the irreversible process
(A) every state is equilibrium state
(B) only the first and the last state are the equilibrium states
(C) involvement of dissipative effects the process
(D) the final form of energy has a less capacity to do mechanical work
7. Mark the CORRECT matched pair of the following.
(A) PMM1 – Violates the statement that total energy of the universe is constant
(B) PMM2 – Violates Kelvin-Planck statement
(C) Reversible heat engine – Heat pump
(D) Carnot cycle – Irreversible process
8. In which process, every state passes by the system is an equilibrium state?
(A) quasi-static process
(B) reversible process
(C) irreversible process
(D) non- quasi-static process
9. Which among the following are the examples of mechanical energy reservoir?
(A) Furnace where fuel is continuously burning
(B) Raised weight
(C) Flywheel in running condition
(D) Compressed spring
10. Entropy is
(A) Path function
(B) extensive property
(C) point function
(D) intensive property

Answer

1. (A), (B), (D)
2. (A), (C), (D)
3. (A), (B)
4. (A), (C), (D)
5. (A), (B), (C)
6. (B), (C), (D)
7. (A), (B), (C)
8. (A), (B)
9. (B), (C), (D)
10. (B), (C)