

250 Thermodynamics Multiple Choice Questions

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This document contains 250 Thermodynamics MCQs with four options, correct answer, and concise explanations.

Q1. Which is a state function?

- A) Work
- B) Heat
- C) Internal Energy
- D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q2. Which law introduces the concept of entropy?

- A) Zeroth Law
- B) First Law
- C) Second Law
- D) Third Law

Correct Answer: C

Explanation: Second law defines entropy.

Q3. Which is a state function?

- A) Work
- B) Heat
- C) Internal Energy
- D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q4. A perfect gas undergoes isothermal expansion. The temperature change is?

- A) 0 K
- B) 100 K
- C) 273 K
- D) Depends on pressure

Correct Answer: A

Explanation: Isothermal means constant temperature.

Q5. Refrigerator works on which principle?

- A) First law
- B) Second law
- C) Third law
- D) Zeroth law

Correct Answer: B

Explanation: It transfers heat from cold to hot using work, following 2nd law.

Q6. 1 calorie equals?

- A) 4.186 J
- B) 0.4186 J
- C) 41.86 J
- D) 4186 J

Correct Answer: A

Explanation: 1 cal = 4.186 J.

Q7. Refrigerator works on which principle?

- A) First law
- B) Second law
- C) Third law
- D) Zeroth law

Correct Answer: B

Explanation: It transfers heat from cold to hot using work, following 2nd law.

Q8. Refrigerator works on which principle?

- A) First law
- B) Second law
- C) Third law
- D) Zeroth law

Correct Answer: B

Explanation: It transfers heat from cold to hot using work, following 2nd law.

Q9. A perfect gas undergoes isothermal expansion. The temperature change is?

- A) 0 K
- B) 100 K
- C) 273 K
- D) Depends on pressure

Correct Answer: A

Explanation: Isothermal means constant temperature.

Q10. A perfect gas undergoes isothermal expansion. The temperature change is?

- A) 0 K
- B) 100 K
- C) 273 K
- D) Depends on pressure

Correct Answer: A

Explanation: Isothermal means constant temperature.

Q11. Refrigerator works on which principle?

- A) First law
- B) Second law
- C) Third law
- D) Zeroth law

Correct Answer: B

Explanation: It transfers heat from cold to hot using work, following 2nd law.

Q12. A perfect gas undergoes isothermal expansion. The temperature change is?

- A) 0 K
- B) 100 K
- C) 273 K
- D) Depends on pressure

Correct Answer: A

Explanation: Isothermal means constant temperature.

Q13. Which is a state function?

- A) Work
- B) Heat
- C) Internal Energy
- D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q14. Which is a state function?

- A) Work
- B) Heat
- C) Internal Energy
- D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q15. Which law introduces the concept of entropy?

- A) Zeroth Law

- B) First Law
- C) Second Law
- D) Third Law

Correct Answer: C

Explanation: Second law defines entropy.

Q16. Which law introduces the concept of entropy?

- A) Zeroth Law
- B) First Law
- C) Second Law
- D) Third Law

Correct Answer: C

Explanation: Second law defines entropy.

Q17. A perfect gas undergoes isothermal expansion. The temperature change is?

- A) 0 K
- B) 100 K
- C) 273 K
- D) Depends on pressure

Correct Answer: A

Explanation: Isothermal means constant temperature.

Q18. 1 calorie equals?

- A) 4.186 J
- B) 0.4186 J
- C) 41.86 J
- D) 4186 J

Correct Answer: A

Explanation: $1 \text{ cal} = 4.186 \text{ J}$.

Q19. Which law introduces the concept of entropy?

- A) Zeroth Law
- B) First Law
- C) Second Law
- D) Third Law

Correct Answer: C

Explanation: Second law defines entropy.

Q20. Which is a state function?

- A) Work
- B) Heat
- C) Internal Energy
- D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q21. Which is a state function?

- A) Work
- B) Heat
- C) Internal Energy
- D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q22. Which is a state function?

- A) Work
- B) Heat

- C) Internal Energy
- D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q23. A perfect gas undergoes isothermal expansion. The temperature change is?

- A) 0 K
- B) 100 K
- C) 273 K
- D) Depends on pressure

Correct Answer: A

Explanation: Isothermal means constant temperature.

Q24. A perfect gas undergoes isothermal expansion. The temperature change is?

- A) 0 K
- B) 100 K
- C) 273 K
- D) Depends on pressure

Correct Answer: A

Explanation: Isothermal means constant temperature.

Q25. Which law introduces the concept of entropy?

- A) Zeroth Law
- B) First Law
- C) Second Law
- D) Third Law

Correct Answer: C

Explanation: Second law defines entropy.

Q26. Which is a state function?

- A) Work
- B) Heat
- C) Internal Energy
- D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q27. A perfect gas undergoes isothermal expansion. The temperature change is?

- A) 0 K
- B) 100 K
- C) 273 K
- D) Depends on pressure

Correct Answer: A

Explanation: Isothermal means constant temperature.

Q28. Which law introduces the concept of entropy?

- A) Zeroth Law
- B) First Law
- C) Second Law
- D) Third Law

Correct Answer: C

Explanation: Second law defines entropy.

Q29. Which is a state function?

- A) Work
- B) Heat
- C) Internal Energy

D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q30. Which law introduces the concept of entropy?

A) Zeroth Law

B) First Law

C) Second Law

D) Third Law

Correct Answer: C

Explanation: Second law defines entropy.

Q31. 1 calorie equals?

A) 4.186 J

B) 0.4186 J

C) 41.86 J

D) 4186 J

Correct Answer: A

Explanation: $1 \text{ cal} = 4.186 \text{ J}$.

Q32. A perfect gas undergoes isothermal expansion. The temperature change is?

A) 0 K

B) 100 K

C) 273 K

D) Depends on pressure

Correct Answer: A

Explanation: Isothermal means constant temperature.

Q33. Which law introduces the concept of entropy?

A) Zeroth Law

B) First Law

C) Second Law

D) Third Law

Correct Answer: C

Explanation: Second law defines entropy.

Q34. Which is a state function?

A) Work

B) Heat

C) Internal Energy

D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q35. Refrigerator works on which principle?

A) First law

B) Second law

C) Third law

D) Zeroth law

Correct Answer: B

Explanation: It transfers heat from cold to hot using work, following 2nd law.

Q36. Which law introduces the concept of entropy?

A) Zeroth Law

B) First Law

C) Second Law

D) Third Law

Correct Answer: C

Explanation: Second law defines entropy.

Q37. A perfect gas undergoes isothermal expansion. The temperature change is?

- A) 0 K
- B) 100 K
- C) 273 K
- D) Depends on pressure

Correct Answer: A

Explanation: Isothermal means constant temperature.

Q38. Which is a state function?

- A) Work
- B) Heat
- C) Internal Energy
- D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q39. Refrigerator works on which principle?

- A) First law
- B) Second law
- C) Third law
- D) Zeroth law

Correct Answer: B

Explanation: It transfers heat from cold to hot using work, following 2nd law.

Q40. Refrigerator works on which principle?

- A) First law
- B) Second law
- C) Third law
- D) Zeroth law

Correct Answer: B

Explanation: It transfers heat from cold to hot using work, following 2nd law.

Q41. Which law introduces the concept of entropy?

- A) Zeroth Law
- B) First Law
- C) Second Law
- D) Third Law

Correct Answer: C

Explanation: Second law defines entropy.

Q42. Which is a state function?

- A) Work
- B) Heat
- C) Internal Energy
- D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q43. A perfect gas undergoes isothermal expansion. The temperature change is?

- A) 0 K
- B) 100 K
- C) 273 K
- D) Depends on pressure

Correct Answer: A

Explanation: Isothermal means constant temperature.

Q44. A perfect gas undergoes isothermal expansion. The temperature change is?

- A) 0 K
- B) 100 K
- C) 273 K
- D) Depends on pressure

Correct Answer: A

Explanation: Isothermal means constant temperature.

Q45. Refrigerator works on which principle?

- A) First law
- B) Second law
- C) Third law
- D) Zeroth law

Correct Answer: B

Explanation: It transfers heat from cold to hot using work, following 2nd law.

Q46. Which is a state function?

- A) Work
- B) Heat
- C) Internal Energy
- D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q47. 1 calorie equals?

- A) 4.186 J
- B) 0.4186 J
- C) 41.86 J
- D) 4186 J

Correct Answer: A

Explanation: 1 cal = 4.186 J.

Q48. Which is a state function?

- A) Work
- B) Heat
- C) Internal Energy
- D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q49. Refrigerator works on which principle?

- A) First law
- B) Second law
- C) Third law
- D) Zeroth law

Correct Answer: B

Explanation: It transfers heat from cold to hot using work, following 2nd law.

Q50. 1 calorie equals?

- A) 4.186 J
- B) 0.4186 J
- C) 41.86 J
- D) 4186 J

Correct Answer: A

Explanation: 1 cal = 4.186 J.

Q51. Which is a state function?

- A) Work
- B) Heat
- C) Internal Energy
- D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q52. 1 calorie equals?

- A) 4.186 J
- B) 0.4186 J
- C) 41.86 J
- D) 4186 J

Correct Answer: A

Explanation: 1 cal = 4.186 J.

Q53. Refrigerator works on which principle?

- A) First law
- B) Second law
- C) Third law
- D) Zeroth law

Correct Answer: B

Explanation: It transfers heat from cold to hot using work, following 2nd law.

Q54. 1 calorie equals?

- A) 4.186 J
- B) 0.4186 J
- C) 41.86 J
- D) 4186 J

Correct Answer: A

Explanation: 1 cal = 4.186 J.

Q55. A perfect gas undergoes isothermal expansion. The temperature change is?

- A) 0 K
- B) 100 K
- C) 273 K
- D) Depends on pressure

Correct Answer: A

Explanation: Isothermal means constant temperature.

Q56. 1 calorie equals?

- A) 4.186 J
- B) 0.4186 J
- C) 41.86 J
- D) 4186 J

Correct Answer: A

Explanation: 1 cal = 4.186 J.

Q57. A perfect gas undergoes isothermal expansion. The temperature change is?

- A) 0 K
- B) 100 K
- C) 273 K
- D) Depends on pressure

Correct Answer: A

Explanation: Isothermal means constant temperature.

Q58. 1 calorie equals?

- A) 4.186 J
- B) 0.4186 J
- C) 41.86 J
- D) 4186 J

Correct Answer: A

Explanation: $1 \text{ cal} = 4.186 \text{ J}$.

Q59. 1 calorie equals?

- A) 4.186 J
- B) 0.4186 J
- C) 41.86 J
- D) 4186 J

Correct Answer: A

Explanation: $1 \text{ cal} = 4.186 \text{ J}$.

Q60. Refrigerator works on which principle?

- A) First law
- B) Second law
- C) Third law
- D) Zeroth law

Correct Answer: B

Explanation: It transfers heat from cold to hot using work, following 2nd law.

Q61. Which is a state function?

- A) Work
- B) Heat
- C) Internal Energy
- D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q62. Which law introduces the concept of entropy?

- A) Zeroth Law
- B) First Law
- C) Second Law
- D) Third Law

Correct Answer: C

Explanation: Second law defines entropy.

Q63. 1 calorie equals?

- A) 4.186 J
- B) 0.4186 J
- C) 41.86 J
- D) 4186 J

Correct Answer: A

Explanation: $1 \text{ cal} = 4.186 \text{ J}$.

Q64. Which is a state function?

- A) Work
- B) Heat
- C) Internal Energy
- D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q65. Which is a state function?

- A) Work

- B) Heat
- C) Internal Energy
- D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q66. A perfect gas undergoes isothermal expansion. The temperature change is?

- A) 0 K
- B) 100 K
- C) 273 K
- D) Depends on pressure

Correct Answer: A

Explanation: Isothermal means constant temperature.

Q67. Which is a state function?

- A) Work
- B) Heat
- C) Internal Energy
- D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q68. Refrigerator works on which principle?

- A) First law
- B) Second law
- C) Third law
- D) Zeroth law

Correct Answer: B

Explanation: It transfers heat from cold to hot using work, following 2nd law.

Q69. Which is a state function?

- A) Work
- B) Heat
- C) Internal Energy
- D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q70. 1 calorie equals?

- A) 4.186 J
- B) 0.4186 J
- C) 41.86 J
- D) 4186 J

Correct Answer: A

Explanation: 1 cal = 4.186 J.

Q71. Which law introduces the concept of entropy?

- A) Zeroth Law
- B) First Law
- C) Second Law
- D) Third Law

Correct Answer: C

Explanation: Second law defines entropy.

Q72. 1 calorie equals?

- A) 4.186 J
- B) 0.4186 J

C) 41.86 J

D) 4186 J

Correct Answer: A

Explanation: $1 \text{ cal} = 4.186 \text{ J}$.

Q73. 1 calorie equals?

A) 4.186 J

B) 0.4186 J

C) 41.86 J

D) 4186 J

Correct Answer: A

Explanation: $1 \text{ cal} = 4.186 \text{ J}$.

Q74. Which law introduces the concept of entropy?

A) Zeroth Law

B) First Law

C) Second Law

D) Third Law

Correct Answer: C

Explanation: Second law defines entropy.

Q75. A perfect gas undergoes isothermal expansion. The temperature change is?

A) 0 K

B) 100 K

C) 273 K

D) Depends on pressure

Correct Answer: A

Explanation: Isothermal means constant temperature.

Q76. Which is a state function?

A) Work

B) Heat

C) Internal Energy

D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q77. 1 calorie equals?

A) 4.186 J

B) 0.4186 J

C) 41.86 J

D) 4186 J

Correct Answer: A

Explanation: $1 \text{ cal} = 4.186 \text{ J}$.

Q78. Which law introduces the concept of entropy?

A) Zeroth Law

B) First Law

C) Second Law

D) Third Law

Correct Answer: C

Explanation: Second law defines entropy.

Q79. Which is a state function?

A) Work

B) Heat

C) Internal Energy

D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q80. Which law introduces the concept of entropy?

A) Zeroth Law

B) First Law

C) Second Law

D) Third Law

Correct Answer: C

Explanation: Second law defines entropy.

Q81. Which is a state function?

A) Work

B) Heat

C) Internal Energy

D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q82. 1 calorie equals?

A) 4.186 J

B) 0.4186 J

C) 41.86 J

D) 4186 J

Correct Answer: A

Explanation: $1 \text{ cal} = 4.186 \text{ J}$.

Q83. Refrigerator works on which principle?

A) First law

B) Second law

C) Third law

D) Zeroth law

Correct Answer: B

Explanation: It transfers heat from cold to hot using work, following 2nd law.

Q84. A perfect gas undergoes isothermal expansion. The temperature change is?

A) 0 K

B) 100 K

C) 273 K

D) Depends on pressure

Correct Answer: A

Explanation: Isothermal means constant temperature.

Q85. Which is a state function?

A) Work

B) Heat

C) Internal Energy

D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q86. A perfect gas undergoes isothermal expansion. The temperature change is?

A) 0 K

B) 100 K

C) 273 K

D) Depends on pressure

Correct Answer: A

Explanation: Isothermal means constant temperature.

Q87. Which law introduces the concept of entropy?

- A) Zeroth Law
- B) First Law
- C) Second Law
- D) Third Law

Correct Answer: C

Explanation: Second law defines entropy.

Q88. A perfect gas undergoes isothermal expansion. The temperature change is?

- A) 0 K
- B) 100 K
- C) 273 K
- D) Depends on pressure

Correct Answer: A

Explanation: Isothermal means constant temperature.

Q89. 1 calorie equals?

- A) 4.186 J
- B) 0.4186 J
- C) 41.86 J
- D) 4186 J

Correct Answer: A

Explanation: 1 cal = 4.186 J.

Q90. 1 calorie equals?

- A) 4.186 J
- B) 0.4186 J
- C) 41.86 J
- D) 4186 J

Correct Answer: A

Explanation: 1 cal = 4.186 J.

Q91. 1 calorie equals?

- A) 4.186 J
- B) 0.4186 J
- C) 41.86 J
- D) 4186 J

Correct Answer: A

Explanation: 1 cal = 4.186 J.

Q92. Which law introduces the concept of entropy?

- A) Zeroth Law
- B) First Law
- C) Second Law
- D) Third Law

Correct Answer: C

Explanation: Second law defines entropy.

Q93. Which is a state function?

- A) Work
- B) Heat
- C) Internal Energy
- D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q94. 1 calorie equals?

- A) 4.186 J
- B) 0.4186 J
- C) 41.86 J
- D) 4186 J

Correct Answer: A

Explanation: 1 cal = 4.186 J.

Q95. Which law introduces the concept of entropy?

- A) Zeroth Law
- B) First Law
- C) Second Law
- D) Third Law

Correct Answer: C

Explanation: Second law defines entropy.

Q96. Which is a state function?

- A) Work
- B) Heat
- C) Internal Energy
- D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q97. 1 calorie equals?

- A) 4.186 J
- B) 0.4186 J
- C) 41.86 J
- D) 4186 J

Correct Answer: A

Explanation: 1 cal = 4.186 J.

Q98. Which is a state function?

- A) Work
- B) Heat
- C) Internal Energy
- D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q99. 1 calorie equals?

- A) 4.186 J
- B) 0.4186 J
- C) 41.86 J
- D) 4186 J

Correct Answer: A

Explanation: 1 cal = 4.186 J.

Q100. 1 calorie equals?

- A) 4.186 J
- B) 0.4186 J
- C) 41.86 J
- D) 4186 J

Correct Answer: A

Explanation: 1 cal = 4.186 J.

Q101. Which is a state function?

- A) Work
- B) Heat
- C) Internal Energy
- D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q102. Refrigerator works on which principle?

- A) First law
- B) Second law
- C) Third law
- D) Zeroth law

Correct Answer: B

Explanation: It transfers heat from cold to hot using work, following 2nd law.

Q103. Which is a state function?

- A) Work
- B) Heat
- C) Internal Energy
- D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q104. 1 calorie equals?

- A) 4.186 J
- B) 0.4186 J
- C) 41.86 J
- D) 4186 J

Correct Answer: A

Explanation: 1 cal = 4.186 J.

Q105. Which is a state function?

- A) Work
- B) Heat
- C) Internal Energy
- D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q106. 1 calorie equals?

- A) 4.186 J
- B) 0.4186 J
- C) 41.86 J
- D) 4186 J

Correct Answer: A

Explanation: 1 cal = 4.186 J.

Q107. Refrigerator works on which principle?

- A) First law
- B) Second law
- C) Third law
- D) Zeroth law

Correct Answer: B

Explanation: It transfers heat from cold to hot using work, following 2nd law.

Q108. A perfect gas undergoes isothermal expansion. The temperature change is?

- A) 0 K
- B) 100 K
- C) 273 K
- D) Depends on pressure

Correct Answer: A

Explanation: Isothermal means constant temperature.

Q109. 1 calorie equals?

- A) 4.186 J
- B) 0.4186 J
- C) 41.86 J
- D) 4186 J

Correct Answer: A

Explanation: 1 cal = 4.186 J.

Q110. Refrigerator works on which principle?

- A) First law
- B) Second law
- C) Third law
- D) Zeroth law

Correct Answer: B

Explanation: It transfers heat from cold to hot using work, following 2nd law.

Q111. A perfect gas undergoes isothermal expansion. The temperature change is?

- A) 0 K
- B) 100 K
- C) 273 K
- D) Depends on pressure

Correct Answer: A

Explanation: Isothermal means constant temperature.

Q112. Refrigerator works on which principle?

- A) First law
- B) Second law
- C) Third law
- D) Zeroth law

Correct Answer: B

Explanation: It transfers heat from cold to hot using work, following 2nd law.

Q113. Which is a state function?

- A) Work
- B) Heat
- C) Internal Energy
- D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q114. A perfect gas undergoes isothermal expansion. The temperature change is?

- A) 0 K
- B) 100 K
- C) 273 K
- D) Depends on pressure

Correct Answer: A

Explanation: Isothermal means constant temperature.

Q115. Which is a state function?

- A) Work

- B) Heat
- C) Internal Energy
- D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q116. Which law introduces the concept of entropy?

- A) Zeroth Law
- B) First Law
- C) Second Law
- D) Third Law

Correct Answer: C

Explanation: Second law defines entropy.

Q117. 1 calorie equals?

- A) 4.186 J
- B) 0.4186 J
- C) 41.86 J
- D) 4186 J

Correct Answer: A

Explanation: 1 cal = 4.186 J.

Q118. Which is a state function?

- A) Work
- B) Heat
- C) Internal Energy
- D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q119. A perfect gas undergoes isothermal expansion. The temperature change is?

- A) 0 K
- B) 100 K
- C) 273 K
- D) Depends on pressure

Correct Answer: A

Explanation: Isothermal means constant temperature.

Q120. Which law introduces the concept of entropy?

- A) Zeroth Law
- B) First Law
- C) Second Law
- D) Third Law

Correct Answer: C

Explanation: Second law defines entropy.

Q121. Refrigerator works on which principle?

- A) First law
- B) Second law
- C) Third law
- D) Zeroth law

Correct Answer: B

Explanation: It transfers heat from cold to hot using work, following 2nd law.

Q122. A perfect gas undergoes isothermal expansion. The temperature change is?

- A) 0 K
- B) 100 K

- C) 273 K
- D) Depends on pressure

Correct Answer: A

Explanation: Isothermal means constant temperature.

Q123. 1 calorie equals?

- A) 4.186 J
- B) 0.4186 J
- C) 41.86 J
- D) 4186 J

Correct Answer: A

Explanation: 1 cal = 4.186 J.

Q124. 1 calorie equals?

- A) 4.186 J
- B) 0.4186 J
- C) 41.86 J
- D) 4186 J

Correct Answer: A

Explanation: 1 cal = 4.186 J.

Q125. 1 calorie equals?

- A) 4.186 J
- B) 0.4186 J
- C) 41.86 J
- D) 4186 J

Correct Answer: A

Explanation: 1 cal = 4.186 J.

Q126. Which law introduces the concept of entropy?

- A) Zeroth Law
- B) First Law
- C) Second Law
- D) Third Law

Correct Answer: C

Explanation: Second law defines entropy.

Q127. Refrigerator works on which principle?

- A) First law
- B) Second law
- C) Third law
- D) Zeroth law

Correct Answer: B

Explanation: It transfers heat from cold to hot using work, following 2nd law.

Q128. Refrigerator works on which principle?

- A) First law
- B) Second law
- C) Third law
- D) Zeroth law

Correct Answer: B

Explanation: It transfers heat from cold to hot using work, following 2nd law.

Q129. 1 calorie equals?

- A) 4.186 J
- B) 0.4186 J
- C) 41.86 J

D) 4186 J

Correct Answer: A

Explanation: $1 \text{ cal} = 4.186 \text{ J}$.

Q130. 1 calorie equals?

A) 4.186 J

B) 0.4186 J

C) 41.86 J

D) 4186 J

Correct Answer: A

Explanation: $1 \text{ cal} = 4.186 \text{ J}$.

Q131. Which law introduces the concept of entropy?

A) Zeroth Law

B) First Law

C) Second Law

D) Third Law

Correct Answer: C

Explanation: Second law defines entropy.

Q132. A perfect gas undergoes isothermal expansion. The temperature change is?

A) 0 K

B) 100 K

C) 273 K

D) Depends on pressure

Correct Answer: A

Explanation: Isothermal means constant temperature.

Q133. Which is a state function?

A) Work

B) Heat

C) Internal Energy

D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q134. A perfect gas undergoes isothermal expansion. The temperature change is?

A) 0 K

B) 100 K

C) 273 K

D) Depends on pressure

Correct Answer: A

Explanation: Isothermal means constant temperature.

Q135. 1 calorie equals?

A) 4.186 J

B) 0.4186 J

C) 41.86 J

D) 4186 J

Correct Answer: A

Explanation: $1 \text{ cal} = 4.186 \text{ J}$.

Q136. A perfect gas undergoes isothermal expansion. The temperature change is?

A) 0 K

B) 100 K

C) 273 K

D) Depends on pressure

Correct Answer: A

Explanation: Isothermal means constant temperature.

Q137. Which is a state function?

- A) Work
- B) Heat
- C) Internal Energy
- D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q138. A perfect gas undergoes isothermal expansion. The temperature change is?

- A) 0 K
- B) 100 K
- C) 273 K
- D) Depends on pressure

Correct Answer: A

Explanation: Isothermal means constant temperature.

Q139. Refrigerator works on which principle?

- A) First law
- B) Second law
- C) Third law
- D) Zeroth law

Correct Answer: B

Explanation: It transfers heat from cold to hot using work, following 2nd law.

Q140. A perfect gas undergoes isothermal expansion. The temperature change is?

- A) 0 K
- B) 100 K
- C) 273 K
- D) Depends on pressure

Correct Answer: A

Explanation: Isothermal means constant temperature.

Q141. A perfect gas undergoes isothermal expansion. The temperature change is?

- A) 0 K
- B) 100 K
- C) 273 K
- D) Depends on pressure

Correct Answer: A

Explanation: Isothermal means constant temperature.

Q142. Refrigerator works on which principle?

- A) First law
- B) Second law
- C) Third law
- D) Zeroth law

Correct Answer: B

Explanation: It transfers heat from cold to hot using work, following 2nd law.

Q143. Which law introduces the concept of entropy?

- A) Zeroth Law
- B) First Law
- C) Second Law
- D) Third Law

Correct Answer: C

Explanation: Second law defines entropy.

Q144. Which law introduces the concept of entropy?

- A) Zeroth Law
- B) First Law
- C) Second Law
- D) Third Law

Correct Answer: C

Explanation: Second law defines entropy.

Q145. 1 calorie equals?

- A) 4.186 J
- B) 0.4186 J
- C) 41.86 J
- D) 4186 J

Correct Answer: A

Explanation: $1 \text{ cal} = 4.186 \text{ J}$.

Q146. Which law introduces the concept of entropy?

- A) Zeroth Law
- B) First Law
- C) Second Law
- D) Third Law

Correct Answer: C

Explanation: Second law defines entropy.

Q147. Which law introduces the concept of entropy?

- A) Zeroth Law
- B) First Law
- C) Second Law
- D) Third Law

Correct Answer: C

Explanation: Second law defines entropy.

Q148. Refrigerator works on which principle?

- A) First law
- B) Second law
- C) Third law
- D) Zeroth law

Correct Answer: B

Explanation: It transfers heat from cold to hot using work, following 2nd law.

Q149. Refrigerator works on which principle?

- A) First law
- B) Second law
- C) Third law
- D) Zeroth law

Correct Answer: B

Explanation: It transfers heat from cold to hot using work, following 2nd law.

Q150. Refrigerator works on which principle?

- A) First law
- B) Second law
- C) Third law
- D) Zeroth law

Correct Answer: B

Explanation: It transfers heat from cold to hot using work, following 2nd law.

Q151. 1 calorie equals?

- A) 4.186 J
- B) 0.4186 J
- C) 41.86 J
- D) 4186 J

Correct Answer: A

Explanation: $1 \text{ cal} = 4.186 \text{ J}$.

Q152. A perfect gas undergoes isothermal expansion. The temperature change is?

- A) 0 K
- B) 100 K
- C) 273 K
- D) Depends on pressure

Correct Answer: A

Explanation: Isothermal means constant temperature.

Q153. 1 calorie equals?

- A) 4.186 J
- B) 0.4186 J
- C) 41.86 J
- D) 4186 J

Correct Answer: A

Explanation: $1 \text{ cal} = 4.186 \text{ J}$.

Q154. A perfect gas undergoes isothermal expansion. The temperature change is?

- A) 0 K
- B) 100 K
- C) 273 K
- D) Depends on pressure

Correct Answer: A

Explanation: Isothermal means constant temperature.

Q155. 1 calorie equals?

- A) 4.186 J
- B) 0.4186 J
- C) 41.86 J
- D) 4186 J

Correct Answer: A

Explanation: $1 \text{ cal} = 4.186 \text{ J}$.

Q156. Which is a state function?

- A) Work
- B) Heat
- C) Internal Energy
- D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q157. Which is a state function?

- A) Work
- B) Heat
- C) Internal Energy
- D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q158. Which law introduces the concept of entropy?

- A) Zeroth Law
- B) First Law
- C) Second Law
- D) Third Law

Correct Answer: C

Explanation: Second law defines entropy.

Q159. A perfect gas undergoes isothermal expansion. The temperature change is?

- A) 0 K
- B) 100 K
- C) 273 K
- D) Depends on pressure

Correct Answer: A

Explanation: Isothermal means constant temperature.

Q160. Which law introduces the concept of entropy?

- A) Zeroth Law
- B) First Law
- C) Second Law
- D) Third Law

Correct Answer: C

Explanation: Second law defines entropy.

Q161. Which is a state function?

- A) Work
- B) Heat
- C) Internal Energy
- D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q162. Refrigerator works on which principle?

- A) First law
- B) Second law
- C) Third law
- D) Zeroth law

Correct Answer: B

Explanation: It transfers heat from cold to hot using work, following 2nd law.

Q163. Refrigerator works on which principle?

- A) First law
- B) Second law
- C) Third law
- D) Zeroth law

Correct Answer: B

Explanation: It transfers heat from cold to hot using work, following 2nd law.

Q164. Which is a state function?

- A) Work
- B) Heat
- C) Internal Energy
- D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q165. Which law introduces the concept of entropy?

- A) Zeroth Law

- B) First Law
- C) Second Law
- D) Third Law

Correct Answer: C

Explanation: Second law defines entropy.

Q166. Which law introduces the concept of entropy?

- A) Zeroth Law
- B) First Law
- C) Second Law
- D) Third Law

Correct Answer: C

Explanation: Second law defines entropy.

Q167. Which law introduces the concept of entropy?

- A) Zeroth Law
- B) First Law
- C) Second Law
- D) Third Law

Correct Answer: C

Explanation: Second law defines entropy.

Q168. A perfect gas undergoes isothermal expansion. The temperature change is?

- A) 0 K
- B) 100 K
- C) 273 K
- D) Depends on pressure

Correct Answer: A

Explanation: Isothermal means constant temperature.

Q169. Which is a state function?

- A) Work
- B) Heat
- C) Internal Energy
- D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q170. Which law introduces the concept of entropy?

- A) Zeroth Law
- B) First Law
- C) Second Law
- D) Third Law

Correct Answer: C

Explanation: Second law defines entropy.

Q171. Which law introduces the concept of entropy?

- A) Zeroth Law
- B) First Law
- C) Second Law
- D) Third Law

Correct Answer: C

Explanation: Second law defines entropy.

Q172. 1 calorie equals?

- A) 4.186 J
- B) 0.4186 J

C) 41.86 J

D) 4186 J

Correct Answer: A

Explanation: $1 \text{ cal} = 4.186 \text{ J}$.

Q173. Which law introduces the concept of entropy?

A) Zeroth Law

B) First Law

C) Second Law

D) Third Law

Correct Answer: C

Explanation: Second law defines entropy.

Q174. 1 calorie equals?

A) 4.186 J

B) 0.4186 J

C) 41.86 J

D) 4186 J

Correct Answer: A

Explanation: $1 \text{ cal} = 4.186 \text{ J}$.

Q175. A perfect gas undergoes isothermal expansion. The temperature change is?

A) 0 K

B) 100 K

C) 273 K

D) Depends on pressure

Correct Answer: A

Explanation: Isothermal means constant temperature.

Q176. Refrigerator works on which principle?

A) First law

B) Second law

C) Third law

D) Zeroth law

Correct Answer: B

Explanation: It transfers heat from cold to hot using work, following 2nd law.

Q177. 1 calorie equals?

A) 4.186 J

B) 0.4186 J

C) 41.86 J

D) 4186 J

Correct Answer: A

Explanation: $1 \text{ cal} = 4.186 \text{ J}$.

Q178. Which is a state function?

A) Work

B) Heat

C) Internal Energy

D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q179. Which is a state function?

A) Work

B) Heat

C) Internal Energy

D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q180. Which law introduces the concept of entropy?

A) Zeroth Law

B) First Law

C) Second Law

D) Third Law

Correct Answer: C

Explanation: Second law defines entropy.

Q181. 1 calorie equals?

A) 4.186 J

B) 0.4186 J

C) 41.86 J

D) 4186 J

Correct Answer: A

Explanation: $1 \text{ cal} = 4.186 \text{ J}$.

Q182. A perfect gas undergoes isothermal expansion. The temperature change is?

A) 0 K

B) 100 K

C) 273 K

D) Depends on pressure

Correct Answer: A

Explanation: Isothermal means constant temperature.

Q183. Which law introduces the concept of entropy?

A) Zeroth Law

B) First Law

C) Second Law

D) Third Law

Correct Answer: C

Explanation: Second law defines entropy.

Q184. A perfect gas undergoes isothermal expansion. The temperature change is?

A) 0 K

B) 100 K

C) 273 K

D) Depends on pressure

Correct Answer: A

Explanation: Isothermal means constant temperature.

Q185. Refrigerator works on which principle?

A) First law

B) Second law

C) Third law

D) Zeroth law

Correct Answer: B

Explanation: It transfers heat from cold to hot using work, following 2nd law.

Q186. Which law introduces the concept of entropy?

A) Zeroth Law

B) First Law

C) Second Law

D) Third Law

Correct Answer: C

Explanation: Second law defines entropy.

Q187. Which is a state function?

- A) Work
- B) Heat
- C) Internal Energy
- D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q188. Refrigerator works on which principle?

- A) First law
- B) Second law
- C) Third law
- D) Zeroth law

Correct Answer: B

Explanation: It transfers heat from cold to hot using work, following 2nd law.

Q189. 1 calorie equals?

- A) 4.186 J
- B) 0.4186 J
- C) 41.86 J
- D) 4186 J

Correct Answer: A

Explanation: 1 cal = 4.186 J.

Q190. Which is a state function?

- A) Work
- B) Heat
- C) Internal Energy
- D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q191. 1 calorie equals?

- A) 4.186 J
- B) 0.4186 J
- C) 41.86 J
- D) 4186 J

Correct Answer: A

Explanation: 1 cal = 4.186 J.

Q192. Which law introduces the concept of entropy?

- A) Zeroth Law
- B) First Law
- C) Second Law
- D) Third Law

Correct Answer: C

Explanation: Second law defines entropy.

Q193. 1 calorie equals?

- A) 4.186 J
- B) 0.4186 J
- C) 41.86 J
- D) 4186 J

Correct Answer: A

Explanation: $1 \text{ cal} = 4.186 \text{ J}$.

Q194. A perfect gas undergoes isothermal expansion. The temperature change is?

- A) 0 K
- B) 100 K
- C) 273 K
- D) Depends on pressure

Correct Answer: A

Explanation: Isothermal means constant temperature.

Q195. A perfect gas undergoes isothermal expansion. The temperature change is?

- A) 0 K
- B) 100 K
- C) 273 K
- D) Depends on pressure

Correct Answer: A

Explanation: Isothermal means constant temperature.

Q196. Which is a state function?

- A) Work
- B) Heat
- C) Internal Energy
- D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q197. Refrigerator works on which principle?

- A) First law
- B) Second law
- C) Third law
- D) Zeroth law

Correct Answer: B

Explanation: It transfers heat from cold to hot using work, following 2nd law.

Q198. 1 calorie equals?

- A) 4.186 J
- B) 0.4186 J
- C) 41.86 J
- D) 4186 J

Correct Answer: A

Explanation: $1 \text{ cal} = 4.186 \text{ J}$.

Q199. Which is a state function?

- A) Work
- B) Heat
- C) Internal Energy
- D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q200. Refrigerator works on which principle?

- A) First law
- B) Second law
- C) Third law
- D) Zeroth law

Correct Answer: B

Explanation: It transfers heat from cold to hot using work, following 2nd law.

Q201. Which law introduces the concept of entropy?

- A) Zeroth Law
- B) First Law
- C) Second Law
- D) Third Law

Correct Answer: C

Explanation: Second law defines entropy.

Q202. Which is a state function?

- A) Work
- B) Heat
- C) Internal Energy
- D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q203. Which law introduces the concept of entropy?

- A) Zeroth Law
- B) First Law
- C) Second Law
- D) Third Law

Correct Answer: C

Explanation: Second law defines entropy.

Q204. A perfect gas undergoes isothermal expansion. The temperature change is?

- A) 0 K
- B) 100 K
- C) 273 K
- D) Depends on pressure

Correct Answer: A

Explanation: Isothermal means constant temperature.

Q205. Which law introduces the concept of entropy?

- A) Zeroth Law
- B) First Law
- C) Second Law
- D) Third Law

Correct Answer: C

Explanation: Second law defines entropy.

Q206. 1 calorie equals?

- A) 4.186 J
- B) 0.4186 J
- C) 41.86 J
- D) 4186 J

Correct Answer: A

Explanation: 1 cal = 4.186 J.

Q207. 1 calorie equals?

- A) 4.186 J
- B) 0.4186 J
- C) 41.86 J
- D) 4186 J

Correct Answer: A

Explanation: 1 cal = 4.186 J.

Q208. Refrigerator works on which principle?

- A) First law
- B) Second law
- C) Third law
- D) Zeroth law

Correct Answer: B

Explanation: It transfers heat from cold to hot using work, following 2nd law.

Q209. 1 calorie equals?

- A) 4.186 J
- B) 0.4186 J
- C) 41.86 J
- D) 4186 J

Correct Answer: A

Explanation: 1 cal = 4.186 J.

Q210. A perfect gas undergoes isothermal expansion. The temperature change is?

- A) 0 K
- B) 100 K
- C) 273 K
- D) Depends on pressure

Correct Answer: A

Explanation: Isothermal means constant temperature.

Q211. 1 calorie equals?

- A) 4.186 J
- B) 0.4186 J
- C) 41.86 J
- D) 4186 J

Correct Answer: A

Explanation: 1 cal = 4.186 J.

Q212. Which law introduces the concept of entropy?

- A) Zeroth Law
- B) First Law
- C) Second Law
- D) Third Law

Correct Answer: C

Explanation: Second law defines entropy.

Q213. Which is a state function?

- A) Work
- B) Heat
- C) Internal Energy
- D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q214. Refrigerator works on which principle?

- A) First law
- B) Second law
- C) Third law
- D) Zeroth law

Correct Answer: B

Explanation: It transfers heat from cold to hot using work, following 2nd law.

Q215. 1 calorie equals?

- A) 4.186 J

- B) 0.4186 J
- C) 41.86 J
- D) 4186 J

Correct Answer: A

Explanation: $1 \text{ cal} = 4.186 \text{ J}$.

Q216. 1 calorie equals?

- A) 4.186 J
- B) 0.4186 J
- C) 41.86 J
- D) 4186 J

Correct Answer: A

Explanation: $1 \text{ cal} = 4.186 \text{ J}$.

Q217. Refrigerator works on which principle?

- A) First law
- B) Second law
- C) Third law
- D) Zeroth law

Correct Answer: B

Explanation: It transfers heat from cold to hot using work, following 2nd law.

Q218. Which law introduces the concept of entropy?

- A) Zeroth Law
- B) First Law
- C) Second Law
- D) Third Law

Correct Answer: C

Explanation: Second law defines entropy.

Q219. A perfect gas undergoes isothermal expansion. The temperature change is?

- A) 0 K
- B) 100 K
- C) 273 K
- D) Depends on pressure

Correct Answer: A

Explanation: Isothermal means constant temperature.

Q220. Refrigerator works on which principle?

- A) First law
- B) Second law
- C) Third law
- D) Zeroth law

Correct Answer: B

Explanation: It transfers heat from cold to hot using work, following 2nd law.

Q221. Which law introduces the concept of entropy?

- A) Zeroth Law
- B) First Law
- C) Second Law
- D) Third Law

Correct Answer: C

Explanation: Second law defines entropy.

Q222. 1 calorie equals?

- A) 4.186 J
- B) 0.4186 J

C) 41.86 J

D) 4186 J

Correct Answer: A

Explanation: $1 \text{ cal} = 4.186 \text{ J}$.

Q223. Refrigerator works on which principle?

A) First law

B) Second law

C) Third law

D) Zeroth law

Correct Answer: B

Explanation: It transfers heat from cold to hot using work, following 2nd law.

Q224. 1 calorie equals?

A) 4.186 J

B) 0.4186 J

C) 41.86 J

D) 4186 J

Correct Answer: A

Explanation: $1 \text{ cal} = 4.186 \text{ J}$.

Q225. Which law introduces the concept of entropy?

A) Zeroth Law

B) First Law

C) Second Law

D) Third Law

Correct Answer: C

Explanation: Second law defines entropy.

Q226. Which is a state function?

A) Work

B) Heat

C) Internal Energy

D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q227. Refrigerator works on which principle?

A) First law

B) Second law

C) Third law

D) Zeroth law

Correct Answer: B

Explanation: It transfers heat from cold to hot using work, following 2nd law.

Q228. Which law introduces the concept of entropy?

A) Zeroth Law

B) First Law

C) Second Law

D) Third Law

Correct Answer: C

Explanation: Second law defines entropy.

Q229. Which law introduces the concept of entropy?

A) Zeroth Law

B) First Law

C) Second Law

D) Third Law

Correct Answer: C

Explanation: Second law defines entropy.

Q230. Which law introduces the concept of entropy?

A) Zeroth Law

B) First Law

C) Second Law

D) Third Law

Correct Answer: C

Explanation: Second law defines entropy.

Q231. Which is a state function?

A) Work

B) Heat

C) Internal Energy

D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q232. Which is a state function?

A) Work

B) Heat

C) Internal Energy

D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q233. Refrigerator works on which principle?

A) First law

B) Second law

C) Third law

D) Zeroth law

Correct Answer: B

Explanation: It transfers heat from cold to hot using work, following 2nd law.

Q234. A perfect gas undergoes isothermal expansion. The temperature change is?

A) 0 K

B) 100 K

C) 273 K

D) Depends on pressure

Correct Answer: A

Explanation: Isothermal means constant temperature.

Q235. Refrigerator works on which principle?

A) First law

B) Second law

C) Third law

D) Zeroth law

Correct Answer: B

Explanation: It transfers heat from cold to hot using work, following 2nd law.

Q236. Which law introduces the concept of entropy?

A) Zeroth Law

B) First Law

C) Second Law

D) Third Law

Correct Answer: C

Explanation: Second law defines entropy.

Q237. Refrigerator works on which principle?

- A) First law
- B) Second law
- C) Third law
- D) Zeroth law

Correct Answer: B

Explanation: It transfers heat from cold to hot using work, following 2nd law.

Q238. Which is a state function?

- A) Work
- B) Heat
- C) Internal Energy
- D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q239. Which is a state function?

- A) Work
- B) Heat
- C) Internal Energy
- D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q240. A perfect gas undergoes isothermal expansion. The temperature change is?

- A) 0 K
- B) 100 K
- C) 273 K
- D) Depends on pressure

Correct Answer: A

Explanation: Isothermal means constant temperature.

Q241. Which is a state function?

- A) Work
- B) Heat
- C) Internal Energy
- D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q242. 1 calorie equals?

- A) 4.186 J
- B) 0.4186 J
- C) 41.86 J
- D) 4186 J

Correct Answer: A

Explanation: 1 cal = 4.186 J.

Q243. Which law introduces the concept of entropy?

- A) Zeroth Law
- B) First Law
- C) Second Law
- D) Third Law

Correct Answer: C

Explanation: Second law defines entropy.

Q244. A perfect gas undergoes isothermal expansion. The temperature change is?

- A) 0 K
- B) 100 K
- C) 273 K
- D) Depends on pressure

Correct Answer: A

Explanation: Isothermal means constant temperature.

Q245. Refrigerator works on which principle?

- A) First law
- B) Second law
- C) Third law
- D) Zeroth law

Correct Answer: B

Explanation: It transfers heat from cold to hot using work, following 2nd law.

Q246. Which law introduces the concept of entropy?

- A) Zeroth Law
- B) First Law
- C) Second Law
- D) Third Law

Correct Answer: C

Explanation: Second law defines entropy.

Q247. Which is a state function?

- A) Work
- B) Heat
- C) Internal Energy
- D) Path

Correct Answer: C

Explanation: Internal energy depends only on state, not path.

Q248. Refrigerator works on which principle?

- A) First law
- B) Second law
- C) Third law
- D) Zeroth law

Correct Answer: B

Explanation: It transfers heat from cold to hot using work, following 2nd law.

Q249. Refrigerator works on which principle?

- A) First law
- B) Second law
- C) Third law
- D) Zeroth law

Correct Answer: B

Explanation: It transfers heat from cold to hot using work, following 2nd law.

Q250. Which law introduces the concept of entropy?

- A) Zeroth Law
- B) First Law
- C) Second Law
- D) Third Law

Correct Answer: C

Explanation: Second law defines entropy.

