

1. Which law of thermodynamics primarily governs the energy conversion process in turbo machines?

- a) First Law
- b) Second Law
- c) Third Law
- d) Zeroth Law

Answer: b) Second Law

Explanation: The Second Law of Thermodynamics governs the direction and efficiency of energy conversion processes in turbo machines, ensuring that energy transfers occur with certain limitations such as entropy increase.

2. The moment of momentum equation is commonly applied to analyze the:

- a) Thermodynamic cycles
- b) Fluid flow through turbo machines
- c) Electrical circuits
- d) Mechanical structures

Answer: b) Fluid flow through turbo machines

Explanation: The moment of momentum equation is used to analyze the fluid flow behavior within turbo machines, providing insights into the forces and moments acting on the fluid.

3. What does the Euler turbine equation describe?

- a) Conservation of mass in turbo machines
- b) Conversion of kinetic energy into mechanical work
- c) Variation of pressure along the streamline
- d) Relationship between moment of momentum and fluid flow rate

Answer: b) Conversion of kinetic energy into mechanical work

Explanation: The Euler turbine equation relates the change in kinetic energy of the fluid to the mechanical work done by the turbine, providing a fundamental understanding of energy conversion within turbines.

4. Impulse turbines primarily operate based on which principle?

- a) Conservation of energy
- b) Newton's third law of motion
- c) Bernoulli's principle
- d) Law of inertia

Answer: b) Newton's third law of motion

Explanation: Impulse turbines operate based on the principle of action and reaction, as described by Newton's third law of motion, where the change in momentum of the fluid results in an equal and opposite force on the turbine blades.

5. What does the degree of reaction indicate in turbo machines?

- a) Efficiency of the machine
- b) Ratio of static pressure to total pressure

- c) Amount of energy conversion
- d) Distribution of kinetic energy

Answer: c) Amount of energy conversion

Explanation: The degree of reaction in turbo machines indicates the proportion of the total energy conversion that occurs in the rotor. It provides insights into how much of the available energy is converted within the machine.

6. The energy equation for relative velocities in turbo machines primarily accounts for:

- a) Frictional losses
- b) Heat transfer
- c) Pressure variation
- d) Angular momentum

Answer: a) Frictional losses

Explanation: The energy equation for relative velocities accounts for losses due to friction within the turbo machine, which affect the efficiency and performance of the machine.

7. In one-dimensional analysis of turbo machines, which parameter remains constant along the streamline?

- a) Velocity
- b) Pressure
- c) Density
- d) Temperature

Answer: d) Temperature

Explanation: In one-dimensional analysis, temperature remains relatively constant along the streamline within turbo machines, assuming adiabatic and isentropic processes.

8. Which law of thermodynamics primarily governs the energy transfer process in reaction turbines?

- a) First Law
- b) Second Law
- c) Third Law
- d) Zeroth Law

Answer: a) First Law

Explanation: The First Law of Thermodynamics governs the energy transfer process in reaction turbines, accounting for the conservation of energy during fluid flow and energy conversion.

9. What does the moment of momentum equation primarily describe in turbo machines?

- a) Conservation of angular momentum
- b) Variation of fluid density
- c) Turbulent flow behavior
- d) Static pressure distribution

Answer: a) Conservation of angular momentum

Explanation: The moment of momentum equation describes the conservation of angular momentum within turbo machines, providing insights into the forces and moments acting on the fluid as it flows through the machine.

10. The principle of impulse in turbo machines is primarily associated with:

- a) Continuous flow of fluid
- b) Steady-state operation
- c) Change in momentum
- d) Variation in pressure

Answer: c) Change in momentum

Explanation: The principle of impulse in turbo machines is associated with the change in momentum of the fluid as it passes through the machine, resulting in the generation of mechanical work.

Related posts:

1. Introduction of IC Engine MCQs
2. Combustion in SI engines MCQs
3. Combustion in CI Engines MCQs
4. Fuel MCQs
5. Supercharging & Turbo charging MCQs
6. Fundamental Aspects of Vibrations MCQs
7. Damped Free Vibrations: Viscous damping MCQs
8. Harmonically excited Vibration MCQS
9. Systems With Two Degrees of Freedom MCQs

10. Noise Engineering Subjective response of sound MCQs
11. Mechatronics Overview and Applications MCQs
12. REVIEW OF TRANSDUCERS AND SENSORS MCQs
13. MICROPROCESSOR ARCHITECTURE MCQs
14. Electrical and Hydraulic Actuators MCQs
15. SINGLE CONDITIONING MCQs
16. Dynamics of Engine Mechanisms MCQs
17. Governor Mechanisms MCQs
18. Balancing of Inertia Forces and Moments in Machines MCQs
19. Friction MCQs
20. Brakes MCQs
21. Introduction Automobile Fuels MCQs
22. Liquid alternative fuels MCQs
23. Gaseous Fuels MCQs
24. Automobile emissions MCQS
25. Emissions Norms & Measurement MCQs
26. Method study MCQs
27. Work measuremen MCQs
28. Job Contribution Evaluation MCQs
29. Human factor engineering MCQs
30. Display systems and anthropometric data MCQs
31. Quality Management MCQs
32. Quality Management process MCQs
33. SQC-Control charts MCQs
34. Process diagnostics MCQs
35. Process improvement MCQs
36. Finite Element Method MCQs

37. Element Types and Characteristics MCQs
38. Assembly of Elements and Matrices MCQs
39. Higher Order and Isoparametric Elements MCQs
40. Static & Dynamic Analysis MCQs
41. Refrigeration & Cooling MCQs
42. Vapour compression system MCQs
43. Vapour absorption system MCQs
44. Psychometric MCQs
45. Air conditioning MCQS
46. Chassis & Body Engg MCQs
47. Steering System MCQs
48. Transmission System MCQs
49. Suspension system MCQs
50. Electrical and Control Systems MCQS
51. Emission standards and pollution control MCQs
52. Tribology and Surface Mechanics MCQs
53. Friction MCQs: Concepts and Analysis
54. Understanding Wear Mechanisms MCQs
55. Lubricants and Lubrication Standards MCQS
56. Nano Tribology MCQs
57. Machine Tools MCQs
58. Regulation of Speed MCQs
59. Design of Metal working Tools MCQs
60. Design of Jigs and Fixtures MCQs
61. Design of Gauges and Inspection Features MCQs
62. Production Systems MCQs
63. Work Study MCQs

64. Production Planning MCQs
65. Production and Inventory Control MCQs
66. Productivity MCQs
67. DESCRIPTIVE STATISTICS MCQs
68. INTRODUCTION TO BIG DATA MCQs
69. BIG DATA TECHNOLOGIES MCQs
70. Energy Management MCQs
71. Energy Audit MCQs
72. Material energy balance MCQs
73. Monitoring and Targeting MCQs
74. Thermal energy management MCQs
75. System Concepts MCQs
76. Management MCQs
77. Marketing MCQs
78. Productivity and Operations MCQs
79. Entrepreneurship MCQs
80. Introduction of MIS MCQs
81. Information systems for decision-making MCQs
82. System Design Quiz MCQs
83. Implementation, Evaluation and Maintenance of the MIS MCQs
84. Pitfalls in MIS Development MCQs
85. Steam generators and boilers MCQs
86. Vapour Cycles MCQs
87. Gas Dynamics MCQs
88. Air Compressors MCQs
89. Nozzles and Condensers MCQs
90. Introduction to stress in machine component MCQs



91. Shafts MCQS
92. Springs MCQs
93. Brakes & Clutches MCQs
94. Journal Bearing MCQs
95. Steam turbines MCQs
96. Water turbines MCQs
97. Rotary Fans, Blowers and Compressors MCQs
98. Power transmitting turbo machines MCQs
99. Energy transfer in turbo machines MCQs
100. Steam turbines MCQs
101. Water turbines MCQS
102. Rotary Fans, Blowers and Compressors MCQs
103. Power transmitting turbo machines MCQs
104. Introduction to Computer Engineering MCQs
105. Types of Analysis MCQS
106. Heat Transfer and Conduction MCQs
107. Extended Surfaces (fins) MCQs
108. Convection MCQs
109. Thermal and Mass Transfer MCQs
110. Thermal Radiation & Boiling/Condensation MCQs
111. Mechanical processes MCQs
112. Electrochemical and chemical metal removal processes MCQs
113. Thermal metal removal processes MCQs
114. Rapid prototyping fabrication methods MCQs
115. Technologies of micro fabrication MCQs
116. Power Plant Engineering MCQs
117. Fossil fuel steam stations MCQs

118. Nuclear Power Station MCQs
119. Hydro-Power Station MCQs
120. Power Station Economics MCQs
121. Design of Belt, Rope and Chain Drives MCQs
122. Spur and Helical Gears MCQs
123. Bevel Gears MCQs
124. Design of I.C. Engine Components MCQs
125. Linear system and distribution models MCQs
126. Supply chain (SCM) MCQs
127. Inventory models MCQs
128. Queueing Theory & Game Theory MCQs
129. Project Management & Meta-heuristics MCQs
130. Overview of Systems Engineering MCQs
131. Structure of Complex Systems MCQs
132. Concept Development and Exploration MCQs
133. Engineering Development MCQs
134. Basic Concepts & Laws of Thermodynamics MCQs
135. Properties of Steam MCQs
136. Air standard cycles MCQs
137. Fuels & combustion MCQs
138. Materials Science MCQs
139. Alloys and Materials MCQs
140. Metal Heat Treatment MCQs
141. Material Testing and Properties MCQs
142. Chemical Analysis of Metal Alloys MCQs
143. Stress and strain MCQs
144. Bending MCQs

145. Torsion in shafts MCQs

146. Theories of failures MCQs

147. Columns & struts MCQs

148. Manufacturing Process MCQs