

COGENERATION

Test your knowledge on cogeneration through this quiz with ten multiple choice questions.

Name: _____

Organization: _____

Date: _____

1. Which of the following is not a benefit of cogeneration

- | | |
|---|---|
| <input type="checkbox"/> a. Increased efficiency of energy conversion and use | <input type="checkbox"/> c. Reduced power factor |
| <input type="checkbox"/> b. Reduced greenhouse gas emissions | <input type="checkbox"/> d. Reduced transmission losses |

2. Cogeneration is the simultaneous generation of

- | | |
|---|--|
| <input type="checkbox"/> a. Heat and power | <input type="checkbox"/> c. Steam and condensate |
| <input type="checkbox"/> b. Mechanical energy and power | <input type="checkbox"/> d. All of the above |

3. The Ranking Cycle is related to

- | | |
|---|--|
| <input type="checkbox"/> a. Boiler | <input type="checkbox"/> c. Condenser |
| <input type="checkbox"/> b. Steam turbine | <input type="checkbox"/> d. All of the above |

4. What is an important advantage of closed-cycle gas turbine cogeneration systems?

- | | |
|--|--|
| <input type="checkbox"/> a. Working fluid remains clean and it does not cause corrosion or erosion | <input type="checkbox"/> c. High pressure of produced steam |
| <input type="checkbox"/> b. Low capital costs | <input type="checkbox"/> d. High temperature of produced steam |

Test your knowledge: Cogeneration

5. The cogeneration system which has a high overall efficiency is the

- a. Gas turbine c. Reciprocating engine
 b. Back pressure steam turbine d. Combined cycle

6. Which of the following statements is not correct

- a. A topping cycle plant generates electricity or mechanical power first c. A bottoming cycle plant generates electricity or mechanical power first
 b. A bottoming cycle plant generates heat first d. Both a and b

7. How is the efficiency of cogeneration measured?

- a. Electrical conversion c. Both a and b
 b. Thermal recovery d. None of the above

8. The cogeneration is not applicable to which type of industry?

- a. Sugar c. Refinery
 b. Paper and pulp d. Refractory / brick-making

9. What is a typical efficiency of a cogeneration system?

- a. 58% c. 85%
 b. 68% d. 95%

10. Which fuel type can be used in a gas turbine?

- a. Light fuel oil c. Diesel
 b. Natural gas d. All of the above

Test your knowledge: Cogeneration

ANSWERS				
1. c	2. a	3. b	4. a	5. d
6. c	7. c	8. d	9. c	10. d