

## FUELS AND COMBUSTION

Test your knowledge on fuels and combustion through this quiz with ten multiple choice questions.

Name: \_\_\_\_\_

Organization: \_\_\_\_\_

Date: \_\_\_\_\_

**1. Which of the following is not a fossil fuel**

- |  |   |
|--|---|
| <input type="checkbox"/> a. Oil        | <input type="checkbox"/> c. Natural gas |
| <input type="checkbox"/> b. Geothermal | <input type="checkbox"/> d. Coal        |

**2. If the liquid fuel is highly viscous, the action required for proper burning in boiler is:**

- |   |                                      |
|---|--------------------------------------|
| <input type="checkbox"/> a. Pre-heating | <input type="checkbox"/> c. Mixing   |
| <input type="checkbox"/> b. Cooling     | <input type="checkbox"/> d. Freezing |

**3. Large and irregular lumps of solid fuel (e.g. coal) when fired in a boiler or furnace may lead to:**

- |  |  |
|--|--|
| <input type="checkbox"/> a. Low thermal efficiency             | <input type="checkbox"/> c. High excess air  |
| <input type="checkbox"/> b. Large unburnt particles in the ash | <input type="checkbox"/> d. All of the above |

**4. The total amount of heat or energy produced by one kg of fuel is the:**

- |   |   |
|---|---|
| <input type="checkbox"/> a. Heat content                | <input type="checkbox"/> c. Net Calorific Value (NCV) |
| <input type="checkbox"/> b. Gross Calorific Value (GCV) | <input type="checkbox"/> d. Specific heat             |

**5. Moisture, ash content, volatile matter and fixed carbon are measured for coal as part of:**

- a. Proximate analysis
- b. Ultimate analysis
- c. Proximate and ultimate analysis
- d. None of the above

**6. Which of the following does not belong in the three T's of combustion**

- a. Time
- b. Temperature
- c. Total pressure
- d. Turbulence

**7. What is the percentage of oxygen by volume in the atmosphere**

- a. 14%
- b. 20.9%
- c. 23%
- d. 79%

**8. LPG is predominantly a mixture of propane and**

- a. Methane
- b. Butane
- c. Isopropane
- d. Ethane

**9. Combustion of which of the following fuels requires the highest amount of excess air**

- a. Light diesel oil (LDO)
- b. LPG
- c. Natural gas
- d. Coal

**10. The presence of carbon monoxide (CO) in flue gases means**

- a. High excess air
- b. High thermal efficiency
- c. Poor combustion
- d. All of the above

*Test your knowledge: Fuels and Combustion*

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