

## Chemical Engineering Fuels and Combustion Questions & Answers

1. A sooty flame can be made non luminous by
  - a. Admitting more gas
  - b. Shutting gas supply
  - c. Admitting more air
  - d. shutting air supply

Ans: C
2. Which of the following coke has the least percentage of ash?
  - a. petroleum coke
  - b. beehive coke
  - c. foundry coke
  - d. metallurgical coke

Ans: A
3. Which of the following fuel gases is heavier than air?
  - a. blast furnace gas
  - b. coke oven gas
  - c. natural gas
  - d. water gas

Ans: A
4. Most of the coking coals are
  - a. Anthracite
  - b. Bituminous
  - c. Lignite
  - d. None of these

Ans: B
5. Calorific value as determined by bomb calorimeter is the
  - a. higher calorific value at constant volume
  - b. gross calorific value at constant pressure
  - c. lower calorific value at constant pressure
  - d. net calorific value at constant volume

Ans: A
6. In flue gas analysis by Orsat's apparatus, carbon dioxide is absorbed by
  - a. potassium hydroxide
  - b. dilute potassium carbonate
  - c. cuporus chloride
  - d. alkaline pyrogallol solution

Ans: A
7. Purity of coke means that, it is high in carbon and low in

- a. volatiles
- b. ash
- c. iron
- d. moisture

Ans: A

8. Fuel can be defined as substance which produces heat by
- a. combustion
  - b. nuclear fission
  - c. nuclear fusion
  - d. all a, b and c

Ans: D

9. Preheating of combustion air is done to
- a. increase the adiabatic flame temperature
  - b. increase the calorific value of the fuel
  - c. complete the combustion of fuel
  - d. reduce its requirement for effecting the complete combustion

Ans: A

10. Which of the following has the highest flame speed?
- a. CO
  - b. H<sub>2</sub>
  - c. CH<sub>4</sub>
  - d. C<sub>2</sub>H<sub>6</sub>

Ans: B