

Chemical Engineering Fuels and Combustion MCQ Questions

1. Which of the following is the maximum coal producing state in India?

- (A) Assam
- (B) Jharkhand
- (C) West Bengal
- (D) Orissa

Ans: Jharkhand

2. Which of the following is not a manufactured fuel?

- (A) charcoal
- (B) colloidal fuels
- (C) soft coke
- (D) coke breeze

Ans: coke breeze

3. The function of an economizer in a boiler is to preheat the

- (A) furnace oil
- (B) pulverised coal
- (C) combustion air
- (D) feedwater

Ans: feedwater

4. Oxygen enrichment of combustion air does not result in increase of the

- (A) heat transfer rate in the furnace

(B) stack loss

(C) oxygen in the flue gas

(D) flame temperature

Ans: oxygen in the flue gas

5. Which of the following has the highest flame velocity?

(A) C^{2H_6}

(B) CH_4

(C) CO

(D) H_2

Ans: H_2

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The largest heat loss in the heat balance of a coal fired boiler due to

(A) hydrogen in the fuel

(B) moisture in the air

(C) radiation loss

(D) dry flue gas loss

Ans: dry flue gas loss

7. Furnace wall heat loss does not depend on the

(A) thermal conductivity of wall brick

(B) material of stock to be heated

(C) velocity of air around the furnace

(D) temperature of external wall surface

Ans: material of stock to be heated

8. Which of the following fuels has the highest calorific value (in kcal/kg)

(A) Natural gas

(B) Hydrogen

(C) LPG

(D) Petrol

Ans: LPG

9. Which of the following has the highest theoretical flame temperature?

(A) acetylene

(B) blast furnace gas

(C) coke oven gas

(D) hydrogen

Ans: acetylene

10. Main use of hard coke produced by high temperature carbonization is in the

(A) domestic ovens

(B) sinter making

(C) cupola in foundries

(D) iron blast furnace

Ans: iron blast furnace