

**CLASS VIII – SCIENCE – CHAPTER 06
COMBUSTION AND FLAME**

Name:

Date:

- 01.** Combustion refers to a:
(a). physical change (b). chemical change (c). cyclic change (d). all the above
- 02.** Select the combustible substance:
(a). wax (b). water (c). glass (d). sand
- 03.** During combustion of coal, the supporter of combustion is:
(a). hydrogen (b). nitrogen (c). oxygen (d). carbon dioxide
- 04.** The process of burning is also called as: -
(a). combustion (b). inflammation (c). induction (d). conduction
- 05.** Water works as a fire extinguisher by removing: -
(a). heat (b). oxygen (c). both a & b (d). source of combustible substance
- 06.** The non SI unit for reporting calorific value is: -
(a). J/kg (b). KP/kg (c). KW/kg (d). KJ/kg
- 07.** The SI unit of the calorific value of a fuel is: -
(a). J/kg (b). KJ/kg (c). N/kg (d). KW/kg
- 08.** SPM released by combustion of coal in air may lead to: -
(a). bone cancer (b). asthma (c). arthritis (d). Goitre
- 09.** A fire triangle doesn't need: -
(a). oxygen (b). nitrogen (c). heat (d). fuel
- 10.** Fire can be extinguished by spraying: -
(a). carbon dioxide (b). carbon tetrachloride (c). water (d). all the above
- 11.** Temperature is higher for a: -
(a). blue flame (b). yellow flame (c). brown flame (d). both a & b
- 12.** Water should not be used as extinguishing agent for fires caused by: -
(a). oil (b). electricity (c). both a & b (d). burning of wood
- 13.** Incompletely burnt fuel releases a very poisonous gas that can be fatal if inhaled: -
(a). carbon dioxide (b). ozone (c). water gas (d). carbon monoxide
- 14.** Fire can be extinguished by :-
(a). lowering temperature below ignition temperature
(b). cutting the supply of oxygen
(c). removing non combustible substances from surroundings
(d). both a & b

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15. To fight fire: -
(a). we should cut off the supply of oxygen
(b). we should remove combustible substance
(c). we should cool down combustible substance below ignition temperature
(d). all the above
16. Acid rain is caused due to dissolution of: -
(a). oxides of nitrogen in rain water
(b). oxides of Sulphur in rain water
(c). both a & b
(d). oxides of carbon in rain water
17. Type of combustion that leads to pollution is/are: -
(a). intermittent combustion
(b). complete combustion
(c). incomplete combustion
(d). both b & c
18. A fire extinguisher works on following principle/s: -
(a). removing combustible substance
(b). cooling the burning substance below ignition temperature
(c). cutting off supply of air
(d). both b & c
19. The dark zone of a candle flame is: -
(a). region around the wick
(b). base close to wick
(c). middle region of flame
(d). outer region of flame
20. For a good fuel: -
(a). ignition temperature should be below the room temperature
(b). ignition temperature should be above the room temperature
(c). ignition temperature should be equal to the room temperature
(d). ignition temperature should be less than 25°C

Q1. Match the column: -

- (A). (a). Incomplete combustion
(b). Explosion
(c). Calorific value
(d). Complete combustion
(e). Slow combustion
- i) Burning a firecracker
ii) carbon to carbon monoxide
iii) carbon to carbon dioxide
iv) spontaneous
v) fuel efficiency

- (B). **Fuel**
- (a). Coal
(b). CNG
(c). Petrol
(d). Biogas
(e). LPG
- calorific value (kJ/kg)**
- i) 35000-40000
ii) 55000
iii) 25000-33000
iv) 50000
v) 45000

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- (C). (a). liquid fuel
(b). gaseous fuel
(c). solid fuel
(d). Good gaseous fuel
(e). Fuel of future
- i) natural gas
ii) hydrogen
iii) coal gas
iv) LPG
v) cattle dung cakes

- (D). **Candle flame**
- (a). yellowish
(b). blue
(c). inner zone
(d). outer zone
(e). middle zone
- property**
- i) not enough oxygen is available
ii) plenty of oxygen available
iii) flame color in non-luminous zone
iv) flame color in luminous zone
v) dark black in colour

- (E). (a). Carbon dioxide
(b). Oxygen
(c). Hydrogen
(d). Biogas
(e). CNG
- i) also called gobar gas
ii) highest calorific value
iii) gas essential for burning
iv) non pollutant vehicular fuel
v) used in fire extinguisher

Q02. Fill in the blanks: -

- (a). The lowest temperature at which any substance catches fire is called _____
temperatur(e).
- (b). The substances which burn in air are called _____ substances.
- (c). In the absence of sufficient _____, combustion of a fuel remains incomplete.
- (d). _____ should not be used for extinguishing fire caused by an electric short-circuit.
- (e). The middle zone of a candle flame is also called the zone of _____ combustion.
- (f). Substances having _____ ignition temperature will catch fire easily.
- (g). Non combustible substances do not burn in _____.
- (h). When methane burns in enough oxygen supply, _____ and water are formed.
- (i). When sufficient oxygen is not available, methane combustion produces _____ and
water.
- (j). Burning of matchstick is an example of _____ combustion.
- (k). One should never use water for extinguishing _____ fires.
- (l). Combustion of food inside living cells occurs through _____.
- (m). Nowadays in place of petrol and diesel, a cleaner fuel _____ is recommended.
- (n). Wax vapours burn completely in _____ zone of a candle flame