

Q1. Choose the correct option

1. A substance which reacts with oxygen giving heat is called a combustible substance. Which one of the following is a combustible substance?  
(a) Iron nail                      (b) Glass                      (c) Stone piece                      (d) Wood
2. Which one of the following has the highest calorific value?  
(a) Kerosene                      (b) Biogas                      (c) LPG                      (d) Petrol
3. Which of the following is not a combustible substance?  
(a) Camphor                      (b) Glass                      (c) Paper                      (d) Coal
4. On placing an inverted tumbler over a burning candle, the flame extinguishes after some time. This is because of non-availability of  
(a) oxygen                      (b) water vapours                      (c) carbon dioxide                      (d) wax
5. \_\_\_\_\_ is produced when a charcoal is burnt in a closed room.  
(a) Carbon dioxide                      (b) Nitrogen dioxide                      (c) Carbon monoxide                      (d) All of These
6. Firework is an example of  
(a) Rapid combustion                      (b) Explosion  
(c) Spontaneous combustion                      (d) Slow combustion

Q2. Fill in the blanks

- (a) A \_\_\_\_\_ process in which a substance reacts with \_\_\_\_\_ to give off heat is called combustion.
- (b) Wood, paper and CNG are examples of \_\_\_\_\_ substances.
- (c) The \_\_\_\_\_ temperature at which a substance catches fire is called its temperature.
- (d) The substances which have very \_\_\_\_\_ ignition temperature and can easily catch fire with a flame are called \_\_\_\_\_ substances.
- (e) The amount of heat energy produced on complete combustion of <sup>1</sup>kg of a fuel is called its \_\_\_\_\_.

Q3. Write True/False against the following statements and also correct the false statements.

- (a) A physical process in which a substance reacts with oxygen to give off heat is called combustion.
- (b) Water is the best extinguisher for fires involving electrical equipment.
- (c) Increased concentration of nitrogen in air is believed to cause global warming.
- (d) Greater the calorific value, better is the fuel.
- (e) Middle zone is the hottest zone of a flame.
- (f) The substances which vapourise during burning, give flame.

Q4. Match the items of Column A with the items of Column B.

Column A	Column B
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(a) Oxides of sulphur and nitrogen	(i) fire extinguisher
(b) CNG	(ii) incomplete combustion of coal
(c) Oxygen	(i) very low ignition temperature
(d) inflammable substance	(iv) acid rain
(e) carbon dioxide	(v) necessary for combustion
(f) carbon monoxide	(vi) fuel for automobiles.

**Q5.** Read the passage carefully and attempt the questions given below.

A chemical process in which a substance reacts with oxygen to give off heat is called combustion. The substance that undergoes combustion is said to be combustible. It is also called a fuel. The fuel may be solid, liquid or gas. Sometimes, light is also given off during combustion, either as a flame or as a glow. The lowest temperature at which a substance catches fire is called its ignition temperature. The substances which have very low ignition temperature and can easily catch fire with a flame are called inflammable substances. Examples of inflammable substances are petrol, alcohol and Liquefied Petroleum Gas (LPG).

- (i) What is a combustible substance?
- (a) Substance that undergoes combustion      (b) Substance that does not undergo combustion  
(c) Substance that glows      (d) All of these
- (ii) Fuels can be :
- (a) Solids only      (b) Liquids only      (c) Gases only      (d) All of these
- (iii) What is ignition temperature?
- (a) Lowest temperature at which a substance catches fire.  
(b) Temperature when water boils  
(c) Temperature at which ice is formed  
(d) None of these
- (iv) What are inflammable substances?
- (a) Substances with low ignition temperature  
(b) Substances which catches fire easily with a flame  
(c) Only option a  
(d) Both a and b
- (v) Identify the inflammable substance from the following.
- (a) Soil      (b) Water      (c) Alcohol      (d) Vinegar