

**CLASS VIII**  
**G. SCIENCE**  
**SUMMATIVE ASSESSMENT NO. – 1**  
**COMBUSTION & FLAME**  
**Assignment No. 6**

- Q.1 Multiple Choice question (Choose the correct option)
- (A) Which poisonous gas is formed as a result of incomplete combustion?  
(a) Coal Gas (b) Carbon Monoxide (c) Carbon Dioxide (d) Nitrogen Dioxide
- (B) To extinguish a flame, which of these methods can be used?  
(a) Reduce temperature to below ignition temperature.  
(b) Remove combustible substance  
(c) Cut off air supply  
(d) Any one of these
- (C) The hottest zone of a candle flame is  
(a) Non Luminous Zone (b) Luminous Zone  
(c) Dark Zone (d) Blue Zone at the base of the wick
- (D) Which of these is a solid pollutant?  
(a) SPN (b) Carbon Monoxide (c) Nitrogen Dioxide (d) Sulphur Dioxide
- (E) Which of these fuels has the highest calorific value?  
(a) CNG (b) Coal (c) Hydrogen (d) Petrol
- Q.2 Name a few fuels used in our homes.
- Q.3 Name a few fuels used in trade and industry.
- Q.4 What fuels are used for running automobiles?
- Q.5 What is the difference between the burning of a candle and burning of a fuel like coal?
- Q.6 What is combustion?
- Q.7 Define a fuel?
- Q.8 (i) What are the essential condition required for combustion?  
(ii) What is the essential condition required for extinguishing fire?
- Q.9 What are inflammable substance? Give examples.
- Q.10 In what form is LPG stored in cylinders?
- Q.11 Name the most common fire extinguisher?
- Q.12 Water is not suitable for extinguishing fires involving electrical equipment oil and petrol. Why?
- Q.13 Explain how CO<sub>2</sub> is able to control fires?

- Q.14 What are the requisites (qualities) of a good (ideal) fuel?
- Q.15 Explain the following terms:-
- (i) Global warming
  - (ii) Acid rain
- Q.16 Suppose you are asked to boil a given quantity of water using cow dung cake, coal and LPG as fuels. Which fuel would you prefer? Give your reason.
- Q.17 Define calorific value of a fuel. Though hydrogen has got highest calorific value but it is not used as a domestic fuel. Why?
- Q.18 Make a labeled diagram of a candle flame.
- Q.19 Name various types of combustion. Give example of each type?
- Q.20 Differentiate between.
- (a) combustible and non combustible substances
  - (b) Complete combustion and incomplete combustion.
  - (c) Luminous and Non=Luminous flames.
- Q.21 Define the term ignition temperature. Why are substances like alcohol and petrol called inflammable substances?
- Q.22 Write three harmful effects of burning fuel.
- Q.23 What problem will arise if a fuel has an ignition temperature lower than the average room temperature? Name the type of combustion that will occur in such case.
- Q.24 In an experiment 5 Kg. of a fuel was completely burnt. Calculate the calorific value of the fuel if the heat produce was measured to be 200000 KJ.
- Q.25 When does a fuel burn with blue colour flame and when does it burn with yellow colour flame.

#### HOTS QUESTIONS:

- Q.1 Why do forest fires occur during hot summers?
- Q.2 Why do we wrap a blanket around a person whose clothes have caught fire?
- Q.3 Find out why one should never sleep in a room with burning or smouldering coal fire in it.
- Q.4(a) Does a paper burn when a lighted matchstick is brought close to it?
- (b) Does a piece of wood burn when a lighted matchstick is brought close to it?
  - (c) Why do you use paper or kerosene oil to burn wood or coal?
  - (d) Why a can full of kerosene oil does not catch fire on its own?
  - (e) Name some materials that produce a flame on burning?
  - (f) Name some materials that do not produce flame on burning.