1. What is a fuel. Give 2 examples each of solid, liquid and gaseous fuels.
2. Define Combustion. What are 3 conditions necessary for combustion to take place?
3. Why does coal not produce a flame on burning?
4. What do we observe when Magnesium ribbon is burnt in air?
5. What are the products formed on burning of fossil fuels?
6. Identify the combustible substances—wood, paper, glass, stone, straw, charcoal, iron nails, plastic.
7. Read activity 4.2 from NCERT page 41, and answer the questions
    a. Why does the candle burn freely in setup (a)
    b. Why does the flame flicker and produce smoke in (b)
    c. Why does the flame go off in (c)
8. How are heat and light produced by the Sun? is it the same as Combustion?
9. Give Reasons---
    a. Forest fires are more common in summers.
    b. Why do we need kerosene oil to start fire in wood or coal?
    c. When the clothes of a person catch fire, why do we wrap a blanket around him?
10. Why does a matchstick not catch fire on its own at room temperature?
11. How does a modern safety match work? Explain.
12. Define –
    a. Ignition Temperature
    b. Calorific value
    c. Acid rain
    d. Global warming
    e. Inflammable substances
13. How is spontaneous combustion different from rapid combustion. Give examples to support your answer.
14. What is an explosion?
15. In our body food is broken down by the reaction with oxygen and heat is produced. Is this combustion? Why?/why not?
16. Observe activity 4.4 , on page 43 of NCERT , and answer these question-
    a. Why does the paper cup with water not catch fire when heated by a flame?
    b. Why does the water contained in it become hot?
17. How does water function as a fire extinguisher?
18. Why can't we use water to extinguish-
    a. Electric fires
    b. Oil and petrol fires
19. How does sand work as a fire extinguisher?
20. For fires involving electrical equipment and inflammable materials like petrol, carbon dioxide (CO_2) is the best extinguisher. Why?
21. CO_2 is an excellent fire extinguisher. List 3 points in support of this statement.
22. How can we supply CO_2 to extinguish a fire?
23. How does a soda acid fire extinguisher produce CO_2
24. Categorize the following as Spontaneous fire, Rapid fire and Explosions. Give reasons.
    a. Coal mine fire
    b. Burning of petrol
    c. Burning of a fire cracker
    d. Forest fire
    e. Burning of a fire cracker
25. List 2 ways by which an explosion can be produced?
26. Choose the ones that do not produce a flame on burning-
    a. Camphor
    b. Wax

c. Magnesium
d. Charcoal

27. How does a burning candle produce a flame?
28. Read activity 4.5, page 47 NCERT, explain how a flame is obtained at the end of the glass tube.
29. If a glass slide is kept on the luminous part of flame, it gets a blackish ring. Why? Explain giving reasons.
30. If you hold a thin long copper wire just inside the non-luminous zone of flame for about 30 seconds, what do you observe? Give scientific reason(s) for your observations.
31. Draw a labelled diagram to show the parts of a flame.
32. Which part of the flame is used by goldsmiths? Why?
33. What are the characteristics of an ideal fuel?
34. Define calorific value?
35. Find the calorific value of a fuel whose 2.5 kg when burnt completely produces 45000Kjof energy.
36. Why is CNG considered an ideal fuel?
37. what are the problems associated with the burning of wood and fossil fuels?
38. Why we are advised never to sleep in a room with burning or smouldering coal fire in it?