



14. Which of the following is not an example of a bio-mass energy source?

- (a) wood                      (b) gobar-gas                      (c) nuclear energy                      (d) coal

15. Most of the sources of energy we use represent stored solar energy. Which of the following is not ultimately derived from the Sun's energy?

- (a) geothermal energy                      (b) wind energy                      (c) nuclear energy                      (d) bio-mass.

16. Which of the following are environment-friendly practices?

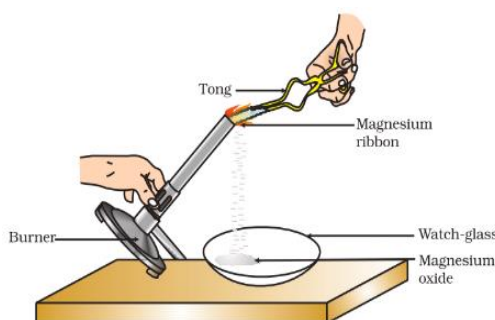
- (a) Carrying cloth-bags to put purchases in while shopping  
(b) Switching off unnecessary lights and fans  
(c) Walking to school instead of getting your mother to drop you on her scooter  
(d) All of the above

17. Tehri Dam is built on which river?

- (a) Ravi                      (b) Ganga                      (c) Yamuna                      (d) Sutlej

## Part-B

18. Product in activity shown in figure is dissolved in water. What is the formula and nature of compound so formed by dissolving in water?



19. Why does an aqueous solution of an acid conduct electricity?

20. Why does micelle formation take place when soap is added to water?

21. Why do you think the noble gases are placed in a separate group?

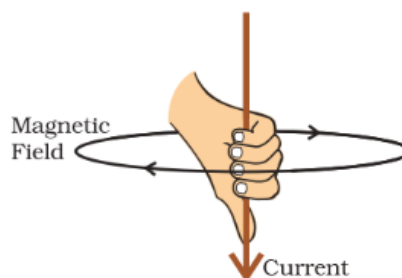
22. How does chemical coordination take place in animals?

23. How is the sex of the child determined in human beings?

24. Define the Pole and Principal focus of a concave mirror.

25. What is the function of 1) Pupil and 2) ciliary muscles in human eye?

26. Name and explain rule shown in figure.



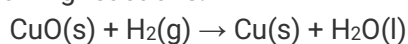
27. What are the disadvantages of fossil fuels?

28. Can any source of energy be pollution-free? Why or why not?

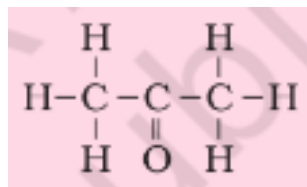
29. What changes would you suggest in your home in order to be environment-friendly?

## Part-C

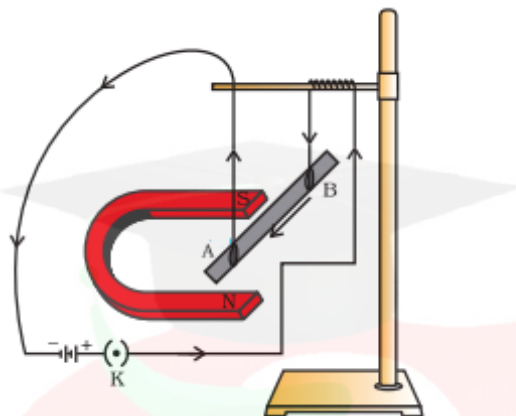
30. Define Oxidation. Identify the substances that are oxidised and the substances that are reduced in the following reactions.



31. Define functional group. What is the IUPAC name of compound shown in figure? What is the name of functional group present in compound?



32. How does the electronic configuration of an atom relate to its position in the Modern Periodic Table?  
 33. What are the differences between aerobic and anaerobic respiration? Name some organisms that use the anaerobic mode of respiration.  
 34. Draw the structure of a neuron and explain its function.  
 35. What is Myopia? What are the reasons for it? How the defect is corrected? Draw diagram of Myopic eye.  
 36. What is the principle of electric motor? Draw and explain it. In which direction will rod 'AB' shown in figure will move?



37. Give any two ways in which non-biodegradable substances would affect the environment.

### Part-D

38. Differentiate between metal and non-metal on the basis of their chemical properties.  
 Or  
 a) Why is sodium kept immersed in kerosene oil?  
 b) What are amphoteric oxides? Give two examples of amphoteric oxides.  
 39. a) How does binary fission differ from multiple fission?  
 b) What are the advantages of sexual reproduction over asexual reproduction?  
 Or  
 a) Draw a labelled diagram of the longitudinal section of a flower.  
 b) What are the changes seen in girls at the time of puberty?  
 40. a) On what factors does the resistance of a conductor depend?  
 b) What is (a) the highest, (b) the lowest total resistance that can be secured by combinations of four coils of resistance 4  $\Omega$ , 8  $\Omega$ , 12  $\Omega$ , 24  $\Omega$ ?

Or

Define and explain ohm's Law. Calculate resistance of conductor from graph.

