

Time: 3 Hours

Max. Marks: 80

Instructions:

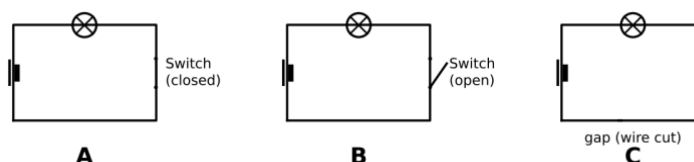
1. The question paper has 4 sections and 33 questions. Answer all the questions.
2. Section A: 20 multiple choice questions of 1 mark each. Write the letter of the correct answer.
3. Section B: 4 questions of 2 marks each. Section C: 5 questions of 4 marks each.
4. Section D: 4 questions of 8 marks each. Each question in Section D has an internal choice.
5. Draw neat, labelled diagrams wherever necessary.

SECTION – A

20 × 1 = 20

Choose the correct answer and write its letter.

1. Lemon juice tastes sour because it contains
A) an acid B) a base C) salt D) sugar
2. A solution of baking soda in water is
A) acidic B) basic C) neutral D) salty
3. Blue litmus paper turns red in
A) an acidic solution B) a basic solution C) a neutral solution D) plain water
4. Turmeric paper turns red when dipped in
A) vinegar B) lemon juice C) soap solution D) sugar solution
5. Which of these is a natural indicator?
A) phenolphthalein
B) China rose (hibiscus) petals
C) vinegar
D) common salt
6. The reaction between an acid and a base is called
A) rusting B) crystallisation C) neutralisation D) evaporation
7. Which of the following is a good conductor of electricity?
A) copper B) rubber C) plastic D) wood
8. In which of the circuits A, B and C will the bulb glow?



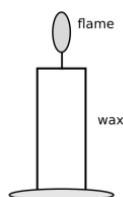
- A) A B) B C) C D) none of them
9. In the symbol of an electric cell, the positive terminal is shown by the
A) longer thin line B) shorter thick line C) circle D) zig-zag line
10. A device used to open or close an electric circuit is a
A) bulb B) cell C) switch D) wire

11. The property of metals by which they can be beaten into thin sheets is
A) ductility B) malleability C) sonority D) lustre
12. The non-metal that is a liquid at room temperature is
A) mercury B) sulphur C) bromine D) iodine
13. Which metal is stored in kerosene?
A) sodium B) iron C) copper D) gold
14. Oxides of non-metals are generally
A) acidic B) basic C) neutral D) metallic
15. Rusting of iron is a
A) physical change B) chemical change C) reversible change D) change of state
16. Melting of ice is a
A) physical change
B) chemical change
C) permanent change
D) change that forms a new substance
17. Large crystals of pure salt can be obtained from its solution by
A) filtration B) decantation C) crystallisation D) sieving
18. A possible explanation that can be tested by doing an experiment is called a
A) hypothesis B) conclusion C) observation D) result
19. The period of adolescence is generally from
A) 11 to 19 years B) 1 to 5 years C) 20 to 30 years D) 40 to 50 years
20. A balanced diet is very important during adolescence because
A) the body grows rapidly
B) we stop growing
C) we need less food
D) we sleep more

SECTION – B

4 × 2 = 8

21. What are indicators? Name two natural indicators.
22. Why do we not get an electric shock when we touch the plastic covering of an electric wire?
23. Why are school bells and temple bells made of metals?
24. Is burning of a candle a physical change or a chemical change? Explain.

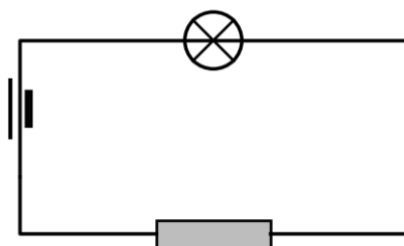


SECTION – C

5 × 4 = 20

25. You are given three unlabelled bottles containing dilute hydrochloric acid, sodium hydroxide solution and sugar solution. How will you identify each of them using turmeric paper or litmus paper? Write the observations in a table.

26. Look at the tester shown.



Object to be tested
(between the two free ends)

(i) Will the bulb glow if a steel spoon is placed between the free ends? Why? (ii) What happens with a rubber eraser?

(iii) What are conductors and insulators? Give two examples of each.

27. Write any four differences between metals and non-metals.

28. Write two differences between physical and chemical changes. Give two examples of each.

29. Write any four habits that help an adolescent stay healthy (food, cleanliness, exercise, sleep).

SECTION – D

4 × 8 = 32

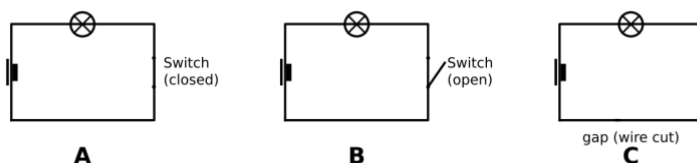
Each question has an internal choice. Answer either (a) or (b).

30. a) What is neutralisation? Explain with an example. Describe any three uses of neutralisation in daily life.

(OR)

b) Describe how you will prepare an indicator from China rose (hibiscus) petals or turmeric, and use it to test lemon juice, soap solution, vinegar and sugar solution. Record the results in a table.

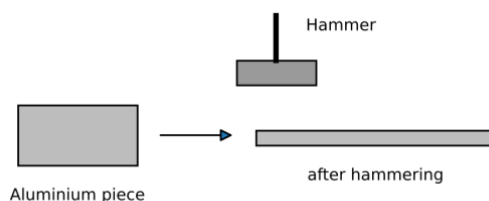
31. a) Look at the circuits A, B and C in Question 8. Explain why the bulb glows in one circuit and not in the other two. Draw the circuit diagram of a torch using symbols for a cell, a switch and a bulb.



(OR)

b) What is a battery? Draw the symbols of an electric cell, a battery, a switch (open and closed), a bulb and connecting wire. Write any four safety precautions to be followed while using electricity.

32. a) Describe activities to show that metals are (i) malleable and (ii) good conductors of heat and electricity. Write two uses of metals and two uses of non-metals.



(OR)

b) Describe what happens when (i) a magnesium ribbon is burnt in air and its ash is dissolved in water, and (ii) sulphur is burnt and the gas is dissolved in water. Test both solutions with litmus. What do you conclude about oxides of metals and non-metals?

33. a) What is rusting? Describe an activity to show that both air and moisture are needed for rusting. Write three ways to prevent rusting.

(OR)

b) Describe an activity to obtain crystals of copper sulphate. Why is crystallisation a physical change?

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