



# CHEMISTRY

## BOOKS - S CHAND CHEMISTRY (HINGLISH)

### TEST PAPER 2

#### Section A

1. Metals generally occur in solid state. Name and write symbols of a metal that exists in

liquid state at room temperature.

A. Bromine (Br)

B. Mercury (Hg)

C. Mercury (Pb)

D. Cadmium (Cd)

**Answer: B**



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2. Answer the following :

(a) Why is Plaster of Paris written as  $CaSO_4 \cdot 1/2H_2O$  How is it possible to have half a water molecule attached to  $CaSO_4$  ?

(b) Why is sodium hydrogen carbonate an essential ingredient in antacids ?



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3. Two solutions A and B have pH values of 4 and 10, respectively. Which solution has more

hydrogen ion concentration?



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4. Give one example each of characters that are inherited and the ones that are acquired in humans. Mention the difference between the inherited and the acquired characters.



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5. What is a redox reaction? When a magnesium ribbon burns in air with a dazzling flame and forms a white ash, is magnesium oxidised or reduced? Why?



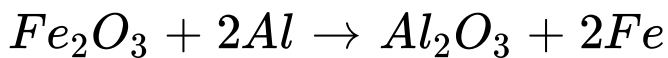
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6. What is a solar cell panel? State its two main advantages.



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7. What type of chemical reaction is represented by the following chemical equation What does it tell us about the relative chemical reactivities of iron and aluminium?



State one use of the above chemical reaction.

- A. Double displacement Reaction
- B. Displacement Reaction
- C. Both a and b
- D. None of the above

**Answer: B**



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**8.** What is a chemical equation? Why are chemical equations balanced? Write a balanced chemical equation with state symbols for the following reaction:

Solutions of barium chloride and sodium sulphate in water react to give insoluble barium sulphate and the solution of sodium chloride.



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9. The atom of an element has electronic configuration 2, 8, 8, 2.

(a) What is the atomic number of the element?

(b) To which of the following elements would it be chemically similar? (Atomic numbers of elements are given in brackets)

$He(2)$ ,  $O_8$ ,  $Mg(12)$ ,  $K(19)$

Give reason for your choice.

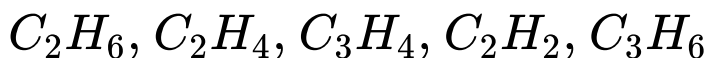


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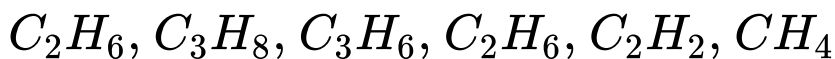


10. What is the general formula of alkenes?

Identify the alkenes from the following?



Which of the following can give addition reactions?



Give reason for your choice.



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11. (i) What is the function of earth wire in electrical instruments?

(ii) Explain what is short circuiting an electric supply.

(iii) What is the usual current rating of the fuse wire in the line to feed:

(a) Lights and fans? (b) Appliances of  $2kW$  or more power?



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**12.** What is spectrum? Draw a labelled diagram to show the formation of spectrum. Name the various colours of spectrum.



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**13. (a)** Give the electronic configurations of sodium and chlorine.

**(b)** Write the electron-dot structures for sodium and chlorine atoms.

**(c)** Describe the formation of sodium chloride

from sodium and chlorine by the transfer of electrons. What changes take place in the electronic configurations of sodium and chlorine during the formation of sodium chloride?

(d) Write any two properties of ionic compounds.



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**14.** (a) Name two metals which are found in free state in nature.

(b) What chemical process is used for extracting a metal from its oxide ore? Name one metal which is extracted by this method.

(c) Describe the extraction of zinc metal from its sulphide ore as well as its carbonate ore.

Write equations of all the reactions involved.



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**15.** What is ozone? How is ozone formed? How does ozone layer protect us from the harmful

effects in the environment? Write the full form of CFC. What harm can they do?



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## Section B

1. A student warmed a neutral organic compound with some ethanoic acid and a little of concentrated sulphuric acid a test-tube. He observed that vapours having sweet smell (fruity smell) are evolved .

(a) What types of functional group is present in this organic compound ?

(b) Give the name and formula of one such organic compound .



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2. Five solutions A, B, C,D and E have pH values of 5, 10, 2, 7 and 1.2 respectively. Whkh solution is:

(a) weakly alkaline?

(b) strongly alkaline?

(c) weakly acidic?

(d) strongly acidic?



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