



# CHEMISTRY

## BOOKS - S CHAND CHEMISTRY (HINGLISH)

### MODEL TEST PAPER 4

#### Section A

1. Explain why, school bags are provided with wide straps to carry them.



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2. An element Z forms an oxide  $ZO_3$ .

(a) What is the valency of element Z ?

(b) What will be the formula of fluoride of Z?



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3. (a) What are isotopes ? Explain by giving an example

(b) Give one similarity and one difference

between a pair of isotopes

(c) Give the number of protons, neutrons and electrons per atom in the two isotopes of chlorine  ${}_{17}^{35}\text{Cl}$  and  ${}_{17}^{37}\text{Cl}$ .



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4. Why is the atmosphere essential for life?



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5. Explain the formation of (i) sodium ion, and (ii) chloride ion, from their respective atoms giving the number of proton and number of electrons in each one of them. What is the reason for positive charge on a sodium ion and a negative charge on a chloride ion ?



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6. (a) Define valency of an element. What valency will be shown by an element having

atomic number 14 ?

(b) What is the relation between the valency of an element and the number of valence electrons in its atoms ? Explain with examples.



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7. What are pisces ? Classify and explain two different kinds of fishes by the help of suitable examples.



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## Section B

1. Tincture of iodine is a mixture of two materials X and Y. The material Y has a property that its solid form can be converted directly into vapours on heating by a process called Z.

(a) What could X be ?

(b) What could Y be ?

(c) Name the process Z.

(d) Which process would you use to recover both the components X and Y from tincture of

iodine ?

(e) Which process can be used to recover only, component Y from tincture of iodine ?



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2. Calculate the number of aluminium ions present in 0.051 g of aluminium oxide.

(Hint: The mass of an ion is the same as that of an atom of the same element. Atomic mass of Al = 27 u)



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