

KHM HIGHER SECONDARY SCHOOL, VALAKKULAM
FIRST TERMINAL EVALUATION - 2021




CHEMISTRY

Time: 40 Minutes.

STD: X.

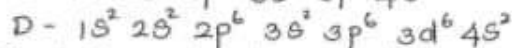
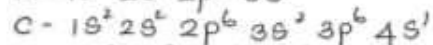
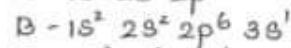
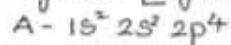
Max.Marks: 20

1. Write the suitable pair
 d block elements : transition elements (1)
 f block elements : - - -
2. 50L of CO_2 is kept in a cylinder at 5atm. The gas is to be transferred completely to another cylinder having a volume of 100L. What will be the pressure of gas in the new cylinder? (2)
3. Which of the following is the outermost electronic configuration of copper? Justify your answer. (2)
 [Atomic number of Cu = 29]
 A: $3d^9 4s^2$
 B: $3d^{10} 4s^1$
4. Select and write down the properties of s block elements from the statements given below. (2)
 - a) Metallic hydroxides shows basic character
 - b) Produces coloured compounds
 - c) Produces ionic compounds
 - d) Shows different oxidation states.
5. The diagram x, y, z represents the same balloon at different heights. Analyse the diagram & answer the questions.

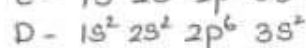
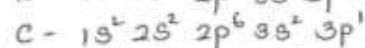
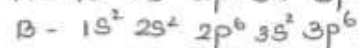
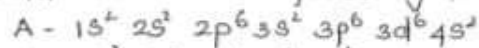
 - a) Which diagram represents the balloon at the highest altitude?
 - b) Give reason for your answer?
 - c) To which gas law does your answer relate?

6. Subshell electronic configuration of some elements are given. [Symbols are not real] (3)



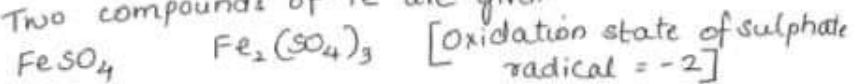
- Find the atomic no. of element 'B'?
- Which subshell in element 'D' has the highest energy?
- To which period does the element 'C' belong?

7. Analyse the given subshell electronic configuration and answer the following? (3)



- Which element normally shows +2 oxidation state?
- Which one of the above is 's' block element?
- Name the element that doesn't take part in the chemical reaction?

8. Two compounds of Fe are given.



- In which compound does iron show +2 oxidation state?
- Name the compound which shows Fe^{3+} ion?
- Write the subshell electronic configuration of Fe^{3+} ion?
- Why transition elements show variable oxidation states? (4)