



# CHEMISTRY

## BOOKS - VGS PUBLICATION-BRILLIANT

### MODEL PAPER 2

#### Section A

1. What is Plaster of Paris? Write its uses.



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2. What agrochemicals are responsible for water pollution ?



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3. Name the common components of photochemical smog.



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4. Potassium carbonate cannot be prepared by Solvey process. Why?



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5. What is the effect of pressure on gaseous chemical equilibrium?



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6. What are intensive and extensive properties?



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7. State the third law of thermodynamics.



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8. Calculate the amount of Carbon dioxide that could be produced when one mole of Carbon

is burnt in 16g of dioxygen.



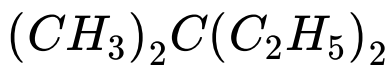
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**9.** Calculate the ratio of kinetic energies of 3g of hydrogen and 4g of oxygen at an given temperature.



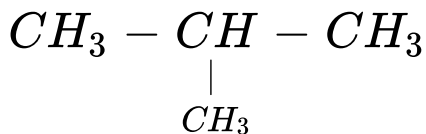
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**10.** Write IUPAC names of the following compounds :



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11. Write IUPAC names of the following compounds:



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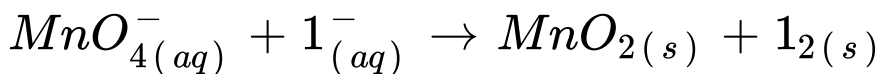
Section B

1. Deduce a Charles, law b. Graham's law of diffusion from kinetic gas equation.



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2. Balance the following redox reaction in basic medium by ion-electron method :



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3. What is a conjugate acid-base pair ? Write the conjugate acid and conjugate base of each of the following :



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4. What is a conjugate acid-base pair ? Write the conjugate acid and conjugate base of each of the following :







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5. Explain the following with suitable examples

:

Electron deficient hydrides



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6. Explain the following with suitable examples

:

Ionic hydrides



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7. Explain the structure of diborane.



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8. What do you understand by

Allotropy



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**9.** What do you understand by

Inert pair effect



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**10.** Describe any two methods of preparation of ethane with equations, give any three reactions of ethane.



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11. Write the reactions of Ethylene with the following :

(a) Ozone

b) Cold, dilute alk,

$KMnO_4$



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12. Write the reactions of Ethylene with the following :

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## Section C

1. What are the postulates of Bohr's model of hydrogen atom?



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2. State Hund's rule and Aufbau principle.



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3. Explain how the elements are classified into s, p, d and f- block elements in the periodic table and give the advantage of this kind of classification .



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4. Explain the hybridisation involved in  $SF_6$ .



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5. State Fajan's rules, and give suitable examples.



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