



CHEMISTRY

BOOKS - VGS PUBLICATION-BRILLIANT

TS MARCH -2018

Section A

1. State the first law of thermodynamics.



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2. State Graham's law of diffusion.



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3. Calculate the oxidation number of Manganese (Mn) in MnO_4^- ion .



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4. What is Lewis acid? Give one example.



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5. Lithium react with water less vigorously than sodium. Give your reason.



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6. What happens when magnesium metal is burnt in air?



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7. What is Biochemical Oxygen Demand (BOD)

?



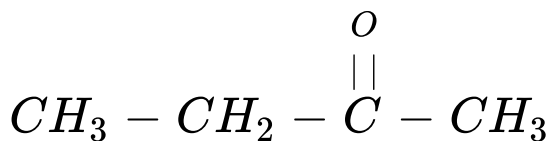
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8. Write the IUPAC names of:



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9. Write IUPAC name of the structure :



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10. Greenhouse effect is caused byand
.....gases.



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11. State and explain the Hess's law of constant heat summation.



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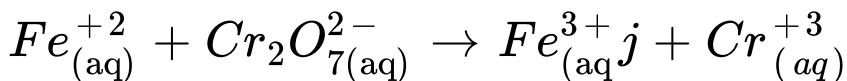
Section B

1. Write the postulates of kinetic molecular theory of gases .



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2. Balance the following equation in acid medium by Ion-electron method :



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3. Explain hybridisation of phosphorous in the formation of PCl_5



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4. Discuss the application of Le-Chatlier's principle for the industrial synthesis of sulphur trioxide (SO_3)



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5. What is Hydrogen bond ? How many types ?
Give one example each .



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6. Write two oxidation and two reduction reactions of Hydrogen peroxide .



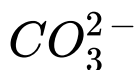
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7. Explain the structure of diborane.



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8. Give hybridisation of carbon in





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9. Give the hybridization of carbon in diamond



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10. Give the hybridization of carbon in Graphite



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11. Give the hybridization of carbon in

Fullerene



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Section C

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



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2. How many following properties varies in a group and in a period ?

- (a) Atomic radius (b) Ionisation enthalpy
- (c) Electronegativity (d) Electron gain enthalpy



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3. Write any two methods of preparation of ethylene . How does it reacts with following ?

(a) Cold , dil.alk. $KMnO_4$

(b) Br_2 / CCl_4



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