CHEMISTRY

BOOKS - VGS PUBLICATION-BRILLIANT

MODEL PAPER 10

Section A

1. Define sink and receptor.

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2. Milk is

3. What is Lewis acid? Give one example.

4. Write any two important uses of caustic soda.

5. Calculate kinetic energy of 5 moles of Nitrogen at $27° C$.

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6. What are silicones ?

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7. What is the oxidation number of manganese in $KMnO_4$?

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8. Give examples and explain what is meant by external fertilisation?

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9. A and B are the compounds of carbon. A on passing over red hot coke is converted to B. A and B respectively are

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10. Depletion of ozone layer cause
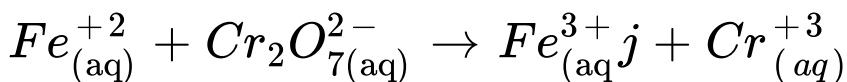
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Section B

1. Deduce (a) Graham's law and (b) Daltons law from Kinetic gas equation.

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

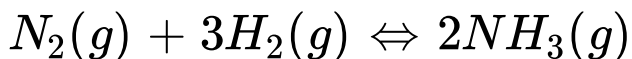$$Fe^{+2}_{(aq)} + Cr_2O^{2-}_{7(aq)} \rightarrow Fe^{3+}_{(aq)}j + Cr^{+3}_{(aq)}$$

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

4. Derive the relation between K_p and K_c for the equilibrium reaction.

$$N_2(g) + 3H_2(g) \Leftrightarrow 2NH_3(g)$$

5. What causes the temporary and permanent hardness of water?

6. Define sp^2 Hybridisation. Explain the structure of Ethylene (C_2H_4).

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

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8. Explain the structure of diborane.

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Section C

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

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2. What is a periodic property? How the following properties vary in a group and in a period? Explain

(a) IP.

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3. Write any two methods for preparation of benzene.