

## **CHEMISTRY**

## **BOOKS - VGS PUBLICATION-BRILLIANT**

## **MODEL PAPER 8**

Section A

1. What is PHBV? How is it useful to man?



2. Write the name and structure of the monomers used for getting the following polymer

**Bakelite** 



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**3.** Write the names of monomers of the following polymers:

Terylene



**4.** Define osmotic pressure.



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5. State Faraday's first law of electrolysis.



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6. What is poling?



**7.** A mixture of  ${\rm Ca_3P_2}$  and  ${\rm CaC_2}$  is used in making Holme's signal - Explain.



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**8.** In modern diving apparatus, a mixture of He and  $O_2$  is used - Why ?



9. Calculate the magnetic moment of a divalent ion in aqueous solution if its atomic number is 25



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**10.** What are artificall sweerening agents? Give example.



11. What are antibiotics? Give example.



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Section B

**1.** Derive Bragg's equation .



**2.** The vapour pressure of pure benzene at a certain temperature is 0.850 bar. A nonvolatile, non-electrolyte solid weighing 0.5g when added to 39.0 g of benzene (molar mass  $78 \text{ g mol}^{-1}$ ), vapour pressure of the solution, then, is 0.845 bar. What is the molar mass of the solid substance ?



- **3.** What is catalysis? How is catalysis classified
- ? Give two examples for each type of catalysis.



**4.** Give examples to differentiate roasting and calcination.



**5.** What is Misch metal ? Given its composition and use.



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**6.** What is an ambidentatc ligand ? Give example.



**7.** Give the sources of the following vitamin and name the diseases caused by their deficiency (a) A (b) D (c) E and (d) K



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**8.** What are Enantiomers ?



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**9.** What is racemisation?



**10.** Name reactions:

Carbylamine reaction.



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11. Explain the following name reactions:

Sandmeyer reaction



## **Section C**

1. Give a detailed account of the Collision theory of reaction rates of biomolecular reaction.



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2. How is chlorine prepared by electrolytic method? Explain its reaction with **NaOH** 



**3.** How is chlorine prepared by electrolytic method? Explain its reaction with NaOH



**4.** How is ozone prepared ? How does it react with the following ?

PbS



**5.** How is ozone prepared ? How does it react with the following ?

KI



**6.** How is ozone prepared ? How does it react with the following ?

Hg



7. How does ozone react with the following:

NO



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- **8.** Write the equations involved in the following reactions:
- (i) Reimer Tiemann reaction (ii) Kolbe's reaction



**9.** Explain the following reactions :

Williamson synthesis



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**10.** Describe the following:

Cannizaro reaction



11. Describe the following:

Dehydrogenation of alcohols

