



CHEMISTRY

BOOKS - VGS PUBLICATION-BRILLIANT

MODEL PAPER 3

Section A

1. Define osmotic pressure.



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2. What are antibiotics. Give examples.



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



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4. A solution of $CuSO_4$ is electrolysed for 10 minutes with a current of 1.5 amperes. What is the mass of copper deposited at the cathode ?



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5. What are food preservatives ? Give examples.



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6. What is Ziegler-Natta catalyst ?



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7. Why does NH_3 act as a Lewis base ?



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8. What is flux ? Give an example.



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9. Which chemical compound is formed in the brown ring test of nitrate ions ?



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10. What is an alloy ? Give example.



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Section B

1. Derive Bragg's equation .



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2. What is catalysis ? How is catalysis classified ? Give two examples for each type of catalysis.



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3. Explain the following given examples.

Colloid



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4. What is the definition of acid according to Bronsted?



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5. Define mole fraction.



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6. Calculate the molarity of a solution containing 10g of NaOH in 500 ml of solution.



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7. How are XeF_2 and XeF_4 prepared ? Give their structures.



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8. Explain Werner's theory. Give the Werner's structures of

$CoCl_3 \cdot 6NH_3$, $CoCl_3 \cdot 5NH_3$, $CoCl_3 \cdot 4NH_3$

and $CoCl_3 \cdot 3NH_3$.





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9. Give one example for corm.



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10. What are Hormones ? Give one example for steroid hormones and polypeptide hormones.



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11. What are Hormones ? Give one example for each.

i) Steroid Hormones

ii) Polypeptide Hormones

iii) Amino Acid derivatives.



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12. Explain Wurtz - Fitting reaction



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13. Write equations of the following reactions:

(i) Friedel-Crafts reaction – alkylation of anisole.

(ii) Nitration of anisole.

(iii) Bromination of anisole in ethanoic acid medium.

(iv) Friedel-Craft's acetylation of anisole.



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



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2. How does ozone react with Ethylene ?



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3. How does ozone react with Ethylene ?



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

Ag



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

Hg





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6. How is chlorine prepared in the laboratory ?

How does it react with the following ?

hot, conc. NaOH



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7. With a suitable example write equations for the Williamson's ether synthesis



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8. With a suitable example write equations for the Reimer-Tiemann reaction



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9. Explain the following reactions with suitable examples :

Carbyl amine reaction



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10. Explain the following reactions with suitable examples :

Diazotization



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