



CHEMISTRY

BOOKS - VGS PUBLICATION-BRILLIANT

MODEL PAPER 4

Section A

1. Define osmotic pressure.



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2. What are antibiotics? Give example.



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3. What is the difference between a soap and a synthetic detergent?



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4. State Faraday's first law of electrolysis.



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5. Give the composition of the Brass.



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6. Give the composition of the German silver.



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7. List out the uses of Neon.



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8. Explain the structures of



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9. Why Zn^{2+} is diamagnetic whereas Mn^{2+} is paramagnetic ?



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10. What is biodegradable polymer ? Give one example of a biodegradable polyester ?



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

Bakelite



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12. What are the constituent monomers in the following polymers? Write their uses.

(a) Nylon 6,6 and (b) Terylene.



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Section B

1. What is the formula of carnallite?



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2. Explain the purification of sulphide ore by Froth Floatation Method.



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



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4. Describe the purification of colloidal solution by the phenomenon of dialysis with a neat diagram.



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5. Write equations for the reaction of acetic acid with reagent :

NaOH



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6. How is chlorine obtained in the laboratory ?

How does it react with the following ?

excess NH_3



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7. Write the equations for reactions of chlorine

with the following :

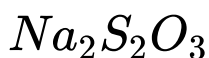
$Ca(OH)_2$



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8. How is chlorine prepared in the laboratory ?

How does it react with the following ?



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9. Explain the applications of Co-ordination compounds in different fields.



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

i) Steroid Hormones

ii) Polypeptide Hormones

iii) Amino Acid derivatives.



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



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

i) Steroid Hormones

ii) Polypeptide Hormones

iii) Amino Acid derivatives.



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13. Explain sp^2 hybridization with an example.



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Section C

1. What are galvanic cells ? Explain the working of a galvanic cell with a neat sketch taking Daniell cell as example.



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2. Write the difference between Order and Molecularity of a reaction.



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3. How is ammonia manufactured by Haber's process ? Explain the reactions of ammonia with



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



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5. How is chlorine obtained in the laboratory ?

How does it react with the following ?

KI



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6. How does ozone react with Ethylene ?



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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



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9. Describe the Cannizaro reaction



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10. Explain crossed aldol condensation with suitable examples



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11. Explain the following name reactions :

Sandmeyer reaction





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