



CHEMISTRY

BOOKS - CBSE COMPLEMENTARY MATERIAL CHEMISTRY (HINGLISH)

SAMPLE PAPER - IV

Section A

1. (i) Number of matamers possible for molecular formula $C_4H_{10}O$ are

(ii) Functional isomer of CH_3CH_2CHO is



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2. Which orbital is not possible

A. (a) 2P

B. (b) 3d

C. (c) 3s

D. (d) 3f

Answer:



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3. Which of the following is paramagnetic

A. (a) CO

B. (b) $\text{O}_2^{(-)}$

C. (c) N_2

D. (d) NO^+

Answer:



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4. Which of the following is not correct?

A. (a) ΔG is zero for a reversible reaction.

B. (b) ΔG is positive for a Spontaneous reaction.

C. (c) ΔG is negative for a Spontaneous reaction.

D. (d) ΔG is positive for a non-Spontaneous reaction.

Answer:



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5. Assertion : Number of orbitals in 3rd shell is 9.

Reason : Number of orbitals for a particular value of $n = n^2$.



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6. Assertion : Ionic radius of Na^+ is smaller than Na Reason : Effective nuclear charge of

Na^+ is higher than Na



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7. What is the IUPAC name of picric acid.



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8. Why noble gases have positive electron gain enthalpy?



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9. How many molecules of SO_2 are present in 11.2 L at STP?

or

Calculate the number of atoms in 35 g of Li (Atomic mass of Li=7 u).



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10. Calculate the number of sigma and pi bonds in C_2H_2 ?



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11. Given the relation between K_a and K_b

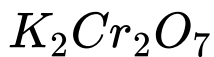
or

Write the conjugate base of H_2CO_3



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12. Write the oxidation number of Cr in



or

Write the stock notation MnO_2



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13. Give an example of electron deficient covalent hydride.

or

Name the isotope of hydrogen which is radioactive in nature.



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14. v49_newFlow



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15. What is Boyle temperature?



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16. Out of staggered and eclipsed from which is more stable and Why?



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17. What is the meaning of the term eutrophication with regards to pollution.



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Section B

1. 0.40 g of an organic compound gave 0.30 g of silver bromide by carius method. Determine the percentage bromine in the compound.



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2. Propanal and pentan-3-one are the ozonolysis products of an alkene. What is the structural formula of the alkene?

or

Convert the following :

(a) 1- Bromopropane to 2- bromopropane

(b) Ethanol to Glycol



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3. Explain the resonance effect and draw the resonance structures of $CH_2 = CH - CHO$. Indicate the relative stability of the contributing structures.



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