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| ((MARKS)) (1/2/3...) | 1 |
| ((QUESTION)) | A crystal of AgI having some Ag+ ions shifted to interstitial sites exhibits |
| ((OPTION\_A)) | Schottky defect |
| ((OPTION\_B)) | Frenkel defect |
| ((OPTION\_C)) | Surface defect |
| ((OPTION\_D)) | Interstitial defect |
| ((CORRECT\_CHOICE)) (A/B/C/D) | B |
| ((EXPLANATION)) (OPTIONAL) |  |

|  |  |
| --- | --- |
| ((MARKS)) (1/2/3...) | 1 |
| ((QUESTION)) | Paracetamol is |
| ((OPTION\_A)) | Both antipyretic and analgesic |
| ((OPTION\_B)) | Only analgesic |
| ((OPTION\_C)) | Only antipyretic |
| ((OPTION\_D)) | Antimicrobial |
| ((CORRECT\_CHOICE)) (A/B/C/D) | A |
| ((EXPLANATION)) (OPTIONAL) |  |

|  |  |
| --- | --- |
| ((MARKS)) (1/2/3...) | 1 |
| ((QUESTION)) | The co-ordination number of [Co(C2O4)3]^3- |
| ((OPTION\_A)) | 4 |
| ((OPTION\_B)) | 3 |
| ((OPTION\_C)) | 5 |
| ((OPTION\_D)) | 6 |
| ((CORRECT\_CHOICE)) (A/B/C/D) | D |
| ((EXPLANATION)) (OPTIONAL) |  |

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| --- | --- |
| ((MARKS)) (1/2/3...) | 1 |
| ((QUESTION)) | Which of the following on heating gives ether as the major product?  P - C6H5CH2Br + CH3ONa  Q - C6H5ONa + CH3Br  R - (CH3)3C-Cl + CH3ONa  S - C6H5CH= CHCl + CH3ONa |
| ((OPTION\_A)) | Both Q and S |
| ((OPTION\_B)) | Both P and Q |
| ((OPTION\_C)) | Both R and S |
| ((OPTION\_D)) | Both P and R |
| ((CORRECT\_CHOICE)) (A/B/C/D) | B |
| ((EXPLANATION)) (OPTIONAL) |  |

|  |  |
| --- | --- |
| ((MARKS)) (1/2/3...) | 1 |
| ((QUESTION)) | The Van’t Hoff factor for a solute that associates in solution is |
| ((OPTION\_A)) | Zero |
| ((OPTION\_B)) | 1.0 |
| ((OPTION\_C)) | Less than one |
| ((OPTION\_D)) | More than one |
| ((CORRECT\_CHOICE)) (A/B/C/D) | C |
| ((EXPLANATION)) (OPTIONAL) |  |

|  |  |
| --- | --- |
| ((MARKS)) (1/2/3...) | 1 |
| ((QUESTION)) | Incorrectly matched pair is, |
| ((OPTION\_A)) | XeF6 - Disorted octahedral |
| ((OPTION\_B)) | XeOF4  - Square pyramidal |
| ((OPTION\_C)) | XeO3 - Pyradimal |
| ((OPTION\_D)) | XeF4 – Tetrahedral |
| ((CORRECT\_CHOICE)) (A/B/C/D) | D |
| ((EXPLANATION)) (OPTIONAL) |  |

|  |  |
| --- | --- |
| ((MARKS)) (1/2/3...) | 1 |
| ((QUESTION)) | A galvanic cell containing Zn/ZnSO4 (0.002M) and Cu/CuSO4 (X) has an EMF of 1.15 V at 298K. If standard electrode potential of the cell is 1.10V, the concentration of the CuSO4 solution will |
| ((OPTION\_A)) | 1.099 M |
| ((OPTION\_B)) | 2.09 M |
| ((OPTION\_C)) | 1.999M |
| ((OPTION\_D)) | 2.999M |
| ((CORRECT\_CHOICE)) (A/B/C/D) | C |
| ((EXPLANATION)) (OPTIONAL) |  |

|  |  |
| --- | --- |
| ((MARKS)) (1/2/3...) | 1 |
| ((QUESTION)) | A signature uses a carbon pencil weighs 0.14mg. Then the number of c-atoms present in the signature is |
| ((OPTION\_A)) | 6.022 X 10^18 atoms |
| ((OPTION\_B)) | 0.7025X 10^18 atoms |
| ((OPTION\_C)) | 60.22 X 10^18 atoms |
| ((OPTION\_D)) | 7.025 X 10^18 atoms |
| ((CORRECT\_CHOICE)) (A/B/C/D) | D |
| ((EXPLANATION)) (OPTIONAL) |  |

|  |  |
| --- | --- |
| ((MARKS)) (1/2/3...) | 1 |
| ((QUESTION)) | Which one of the following can be used to get anhydrides from carboxylic acids |
| ((OPTION\_A)) | P2O5 |
| ((OPTION\_B)) | KMnO4 |
| ((OPTION\_C)) | H3PO4 |
| ((OPTION\_D)) | LiAlH4 |
| ((CORRECT\_CHOICE)) (A/B/C/D) | A |
| ((EXPLANATION)) (OPTIONAL) |  |

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| --- | --- |
| ((MARKS)) (1/2/3...) | 1 |
| ((QUESTION)) | The following element among alkali metal is a liquid at room temperature |
| ((OPTION\_A)) | Lithium |
| ((OPTION\_B)) | Mercury |
| ((OPTION\_C)) | Cesium |
| ((OPTION\_D)) | Sodium |
| ((CORRECT\_CHOICE)) (A/B/C/D) | B |
| ((EXPLANATION)) (OPTIONAL) |  |

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| --- | --- |
| ((MARKS)) (1/2/3...) | 1 |
| ((QUESTION)) | An example for zero dipole moment is |
| ((OPTION\_A)) | H2O |
| ((OPTION\_B)) | CO2 |
| ((OPTION\_C)) | BF3 |
| ((OPTION\_D)) | NH3 |
| ((CORRECT\_CHOICE)) (A/B/C/D) | C |
| ((EXPLANATION)) (OPTIONAL) |  |

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| --- | --- |
| ((MARKS)) (1/2/3...) | 1 |
| ((QUESTION)) | Which of the following is not produced by electrolysis of brine solution? |
| ((OPTION\_A)) | Chlorine |
| ((OPTION\_B)) | Sodium Hydroxide |
| ((OPTION\_C)) | Hydrogen |
| ((OPTION\_D)) | Oxygen |
| ((CORRECT\_CHOICE)) (A/B/C/D) | D |
| ((EXPLANATION)) (OPTIONAL) |  |

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| --- | --- |
| ((MARKS)) (1/2/3...) | 1 |
| ((QUESTION)) | The vitamin that helps in clotting of blood is |
| ((OPTION\_A)) | C |
| ((OPTION\_B)) | K |
| ((OPTION\_C)) | A |
| ((OPTION\_D)) | B2 |
| ((CORRECT\_CHOICE)) (A/B/C/D) | B |
| ((EXPLANATION)) (OPTIONAL) |  |

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| --- | --- |
| ((MARKS)) (1/2/3...) | 1 |
| ((QUESTION)) | The elements in which electrons are progressively filled in 4f orbitals are called |
| ((OPTION\_A)) | Transition elements |
| ((OPTION\_B)) | Actinides |
| ((OPTION\_C)) | Halogens |
| ((OPTION\_D)) | Lanthanides |
| ((CORRECT\_CHOICE)) (A/B/C/D) | D |
| ((EXPLANATION)) (OPTIONAL) |  |

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| --- | --- |
| ((MARKS)) (1/2/3...) | 1 |
| ((QUESTION)) | The PH of 0.01M HNO3 is |
| ((OPTION\_A)) | 2.5 |
| ((OPTION\_B)) | 2.0 |
| ((OPTION\_C)) | 2.05 |
| ((OPTION\_D)) | 3.0 |
| ((CORRECT\_CHOICE)) (A/B/C/D) | B |
| ((EXPLANATION)) (OPTIONAL) |  |

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| --- | --- |
| ((MARKS)) (1/2/3...) | 1 |
| ((QUESTION)) | Permanent hardness of water is due to the presence of |
| ((OPTION\_A)) | MgSO4 |
| ((OPTION\_B)) | MgCO3 |
| ((OPTION\_C)) | CaCO3 |
| ((OPTION\_D)) | Mg(HCO3)2 |
| ((CORRECT\_CHOICE)) (A/B/C/D) | A |
| ((EXPLANATION)) (OPTIONAL) |  |

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| --- | --- |
| ((MARKS)) (1/2/3...) | 1 |
| ((QUESTION)) | When a substance is treated with ice cold NaNO2 solution and dil. HCl at 0-50°C, the yellow oily layer is formed. This indicates the presence of |
| ((OPTION\_A)) | Aldehydes |
| ((OPTION\_B)) | Primary amines |
| ((OPTION\_C)) | Secondary amines |
| ((OPTION\_D)) | Tertiary amines |
| ((CORRECT\_CHOICE)) (A/B/C/D) | C |
| ((EXPLANATION)) (OPTIONAL) |  |

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| --- | --- |
| ((MARKS)) (1/2/3...) | 1 |
| ((QUESTION)) | Reaction of benzene with acid chloride in presence of anhydrous AlCl3 giving aromatic ketones is known as |
| ((OPTION\_A)) | Friedel crafts acylation |
| ((OPTION\_B)) | Friedel crafts reaction |
| ((OPTION\_C)) | Chlorination |
| ((OPTION\_D)) | Perkins reaction |
| ((CORRECT\_CHOICE)) (A/B/C/D) | A |
| ((EXPLANATION)) (OPTIONAL) |  |

|  |  |
| --- | --- |
| ((MARKS)) (1/2/3...) | 1 |
| ((QUESTION)) | Copper is extracted from copper pyrites by |
| ((OPTION\_A)) | Electrometallurgy |
| ((OPTION\_B)) | Auto reduction |
| ((OPTION\_C)) | Thermal decomposition |
| ((OPTION\_D)) | Reduction by coke |
| ((CORRECT\_CHOICE)) (A/B/C/D) | B |
| ((EXPLANATION)) (OPTIONAL) |  |

|  |  |
| --- | --- |
| ((MARKS)) (1/2/3...) | 1 |
| ((QUESTION)) | Cis – 1, 4 – Poly isoprene is called |
| ((OPTION\_A)) | Natural rubber |
| ((OPTION\_B)) | Neoprene |
| ((OPTION\_C)) | Buna-s |
| ((OPTION\_D)) | Buna- N |
| ((CORRECT\_CHOICE)) (A/B/C/D) | A |
| ((EXPLANATION)) (OPTIONAL) |  |

|  |  |
| --- | --- |
| ((MARKS)) (1/2/3...) | 1 |
| ((QUESTION)) | Osteomalacia is caused by the deficiency of vitamin |
| ((OPTION\_A)) | A |
| ((OPTION\_B)) | K |
| ((OPTION\_C)) | E |
| ((OPTION\_D)) | D |
| ((CORRECT\_CHOICE)) (A/B/C/D) | D |
| ((EXPLANATION)) (OPTIONAL) |  |

|  |  |
| --- | --- |
| ((MARKS)) (1/2/3...) | 1 |
| ((QUESTION)) | Which of the following rare gas is used to fill baloons |
| ((OPTION\_A)) | Krypton |
| ((OPTION\_B)) | Xenon |
| ((OPTION\_C)) | Radon |
| ((OPTION\_D)) | Helium |
| ((CORRECT\_CHOICE)) (A/B/C/D) | D |
| ((EXPLANATION)) (OPTIONAL) |  |

|  |  |
| --- | --- |
| ((MARKS)) (1/2/3...) | 1 |
| ((QUESTION)) | Which of the following fibre are made poly amides? |
| ((OPTION\_A)) | Dacron |
| ((OPTION\_B)) | Orlon |
| ((OPTION\_C)) | Nylon |
| ((OPTION\_D)) | Rayon |
| ((CORRECT\_CHOICE)) (A/B/C/D) | C |
| ((EXPLANATION)) (OPTIONAL) |  |

|  |  |
| --- | --- |
| ((MARKS)) (1/2/3...) | 1 |
| ((QUESTION)) | The meta directing group is |
| ((OPTION\_A)) | –OH |
| ((OPTION\_B)) | –NH2 |
| ((OPTION\_C)) | –R |
| ((OPTION\_D)) | –COOH |
| ((CORRECT\_CHOICE)) (A/B/C/D) | D |
| ((EXPLANATION)) (OPTIONAL) |  |

|  |  |
| --- | --- |
| ((MARKS)) (1/2/3...) | 1 |
| ((QUESTION)) | The formula of Borax is |
| ((OPTION\_A)) | H3BO3 |
| ((OPTION\_B)) | NaBO2.6H2O |
| ((OPTION\_C)) | Na2B4O7.10H2O |
| ((OPTION\_D)) | B2H6 |
| ((CORRECT\_CHOICE)) (A/B/C/D) | C |
| ((EXPLANATION)) (OPTIONAL) |  |

|  |  |
| --- | --- |
| ((MARKS)) (1/2/3...) | 1 |
| ((QUESTION)) | The method used for purification of crude oil in petroleum industry |
| ((OPTION\_A)) | Fractional distillation |
| ((OPTION\_B)) | Sublimation |
| ((OPTION\_C)) | Distillation |
| ((OPTION\_D)) | Steam distillation |
| ((CORRECT\_CHOICE)) (A/B/C/D) | A |
| ((EXPLANATION)) (OPTIONAL) |  |

|  |  |
| --- | --- |
| ((MARKS)) (1/2/3...) | 1 |
| ((QUESTION)) | The substance responsible for ozone depletion is |
| ((OPTION\_A)) | Oxygen free radical |
| ((OPTION\_B)) | Chlorine molecule |
| ((OPTION\_C)) | Hydroxyl ion |
| ((OPTION\_D)) | Chlorine free radical |
| ((CORRECT\_CHOICE)) (A/B/C/D) | D |
| ((EXPLANATION)) (OPTIONAL) |  |

|  |  |
| --- | --- |
| ((MARKS)) (1/2/3...) | 1 |
| ((QUESTION)) | In electrochemical corrosion of metals, the metal undergoing corrosion, |
| ((OPTION\_A)) | Becomes anode |
| ((OPTION\_B)) | Becomes cathode |
| ((OPTION\_C)) | Becomes inert |
| ((OPTION\_D)) | None of these |
| ((CORRECT\_CHOICE)) (A/B/C/D) | A |
| ((EXPLANATION)) (OPTIONAL) |  |

|  |  |
| --- | --- |
| ((MARKS)) (1/2/3...) | 1 |
| ((QUESTION)) | In reaction B(OH)3 + 2H2O → [B(OH) 4]- + H3O+, B(OH)3 function as, |
| ((OPTION\_A)) | Lewis base |
| ((OPTION\_B)) | Protonic acid |
| ((OPTION\_C)) | Lewis acid |
| ((OPTION\_D)) | Bronsted acid |
| ((CORRECT\_CHOICE)) (A/B/C/D) | C |
| ((EXPLANATION)) (OPTIONAL) |  |

|  |  |
| --- | --- |
| ((MARKS)) (1/2/3...) | 1 |
| ((QUESTION)) | In the reaction with Tollen’s reagent acetylene shows |
| ((OPTION\_A)) | Oxidizing property |
| ((OPTION\_B)) | Reducing property |
| ((OPTION\_C)) | Basic property |
| ((OPTION\_D)) | Acidic property |
| ((CORRECT\_CHOICE)) (A/B/C/D) | D |
| ((EXPLANATION)) (OPTIONAL) |  |