

CHEMISTRY

BOOKS - MTG WBEE CHEMISTRY (HINGLISH)

MODEL TEST PAPER

Mcqs

1. 10 g atoms of an α -active radioactive isotope are disintegrating in a sealed container. In one hour, helium gas collected at STP is 11.2 cm^3 . The half-life of the radioactive isotope is

A. 138.6 hr

B. 1386 hr

C. 13860 hr

D. 138600 hr

Answer: C



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2. In a fcc lattice, atom A occupies the corner positions and atom B occupies the face centred position. If one atom of B is missing from one of the face centred points, the formula of the compound is

A. A_2B

B. AB_2

C. A_2B_3

D. A_2B_5

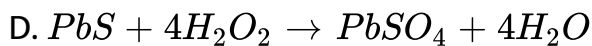
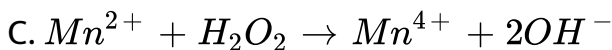
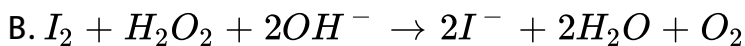
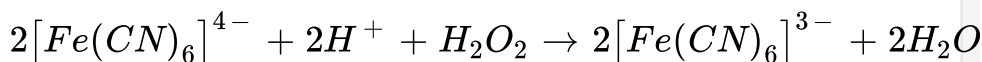
Answer: D



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3. Which of the following equations depicts reducing nature of H_2O_2 ?

A.



Answer: B



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4. Which of the following statements are not correctly associated with S_N1 reaction?

I. Rearrangement is possible.

II. Rate is affected by solvent polarity.

III. The strength of the nucleophile is important in rate determining step.

IV. The reactivity order is : tertiary > secondary > primary

V. Proceeds with complete inversion of configuration.

A. III, V only

B. II, III, V only

C. IV and V only

D. III only

Answer: A



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5. In a compound A_xB_y ,

A. number of moles of A = number of moles of B = number of moles of A_xB_y

B. eq. of A = eq. of B = eq. of A_xB_y

C. $y \times$ number of moles of A = $y \times$ number of moles of B = $(x+y) \times$ number of moles of A_xB_y

D. $y \times$ number of moles of A = $y \times$ number of moles of B

Answer: B



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6. E° values of some redox couples are given below. On the basis of these values choose the correct option.

E° values : $Br_2 | Br^- = + 1.90$, $Ag^+ | Ag_{(s)} = + 0.80$

$Cu^{2+} | Cu_{(s)} = +0.34$, $I_2_{(s)} | I^- = + 0.54$

A. Cu will reduce Br^-

B. Cu will reduce Ag.

C. Cu will reduce I^- .

D. Cu will reduce Br_2 .

Answer: D



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7. The order of reactivity of following alkyl halides towards S_N1 reaction is

(i) $(CH_3)_3CBr$, (ii) $(C_6H_5)_2CHBr$, (iii) $(C_6H_5)_2C(CH_3)Br$, (iv) $(CH_3)_2CHBr$, (v) C_2H_5Br

A. $(v) > (iv) > (i) > (ii) > (iii)$

B. $(ii) > (i) > (iii) > (v) > (iv)$

C. $(i) > (iii) > (v) > (ii) > (iv)$

D. $(iii) > (ii) > (i) > (iv) > (v)$

Answer: D



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8. Aldol condensation will not be observed in

A. chloral

B. phenylacetaldehyde

C. hexanal

D. ethanal

Answer: A



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9. The ionisation energy of hydrogen atom (in the ground state) is x kJ. The energy required for an electron to jump from 2^{nd} orbit to the 3^{rd} orbit will be

A. $x/6$

B. $5x$

C. $7.2x$

D. $5x/36$

Answer: D



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10. Which of the following halogens does not exhibit positive oxidation state in its compounds?

A. Cl

B. Br

C. I

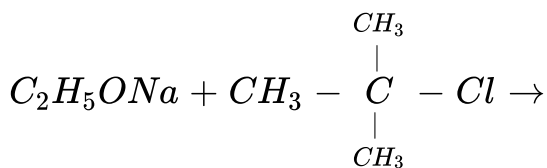
D. F

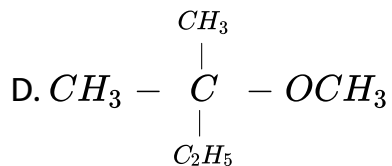
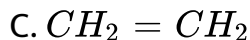
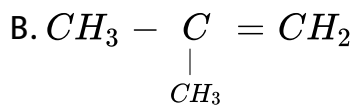
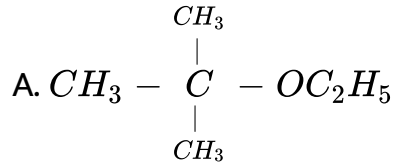
Answer: D



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11. Major product of the following reaction will be





Answer: B



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12. Aniline is treated with bromine water to give an organic compound 'X' which when treated with NaNO_2 and HCl at 0°C gives a water soluble compound 'Y'. Compound 'Y' on treatment with CuCl_2 and HCl gives compound 'Z'. Compound 'Z' is

A. o-bromochlorobenzene

B. p-bromochlorobenzene

C. 2, 4, 6-tribromophenol

D. 2, 4, 6-tribromochlorobenzene.

Answer: D



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13. Increasing order of electronegativity is

A. $Bi < P < S < Cl$

B. $P < Bi < S < Cl$

C. $S < Bi < P < Cl$

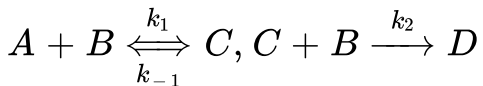
D. $Cl < S < Bi < P$

Answer: A



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14. Consider the following reactions,



The rate in terms of $-\frac{d[B]}{dt}$ will be

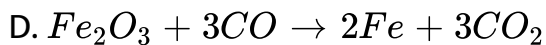
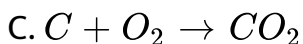
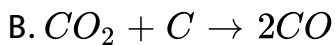
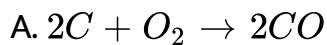
- A. $k_1[A][B] - k_{-1}[C]$
- B. $k_1[A][B] - k_1[C] - k_2[C][B]$
- C. $k_1[A][B] - k_2[C][B]$
- D. $k_1[A][B] - k_{-1}[C] + k_2[C][B]$

Answer: D



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15. Which of the following reactions taking place in the blast furnace during extraction of iron is endothermic?

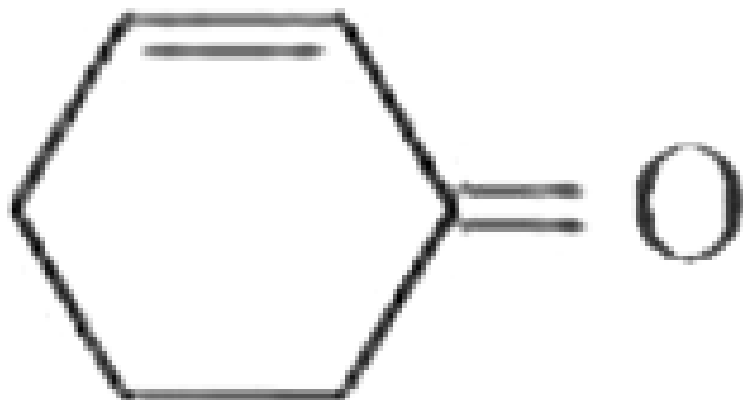


Answer: B



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16. The IUPAC name of



is

- A. cyclohexanone
- B. cyclohexanone
- C. oxycyclohexene
- D. cyclohex-2-en-1-one

Answer: D



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17. In which of the following bond angle is maximum?



Answer: B



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18. At constant temperature, the equilibrium constant (K_p) for the decomposition reaction,



is expressed by $K_p = 4x^2 P / (1 - x^2)$, where P = pressure and x

= extent of decomposition. Which of the following statements is true?

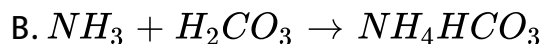
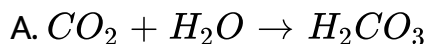
- A. K_p increases with increase in P.
- B. K_p increases with increase in x.
- C. K_p increases with decrease in x.
- D. K_p remains constant with change in P and x.

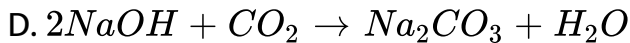
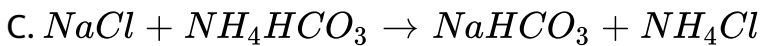
Answer: D



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19. Which of the following reactions is not associated with the Solvay process of manufacture of sodium carbonate?



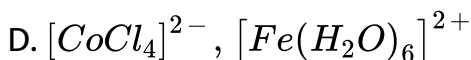
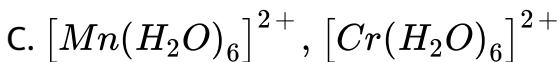
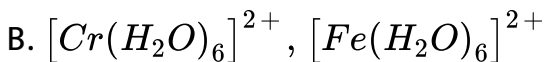
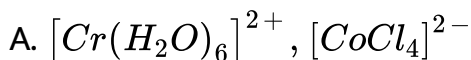


Answer: D



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20. The pair in which both species have the same magnetic moment (spin only value) is



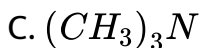
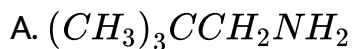
Answer: B





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21. Which gives black precipitate on reaction with CS_2 followed by addition of $HgCl_2$?



D. All of these

Answer: A



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22. Which of the following is a non-narcotic analgesic?

A. Luminal

B. Salol

C. Codeine

D. Naproxen

Answer: D



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23. For the reaction, $H_2(g) + \frac{1}{2}O_2(g) \rightarrow H_2O(l)$

$B. E. (H-H) = x_1$, $B. E. (O=O) = x_2$ and $B. E. (O-H) = x_3$.

If the latent heat of vapourisation of water liquid into water

vapour = x_4 , then $\Delta_f H$ (heat of formation of liquid water) is

A. $x_1 + \frac{x_2}{2} - x_3 + x_4$

B. $2x_3 - x_1 - \frac{x_2}{2} - x_4$

C. $x_1 + \frac{x_2}{2} - 2x_3 - x_4$

$$D. x_1 + \frac{x_2}{2} - 2x_3 + x_4$$

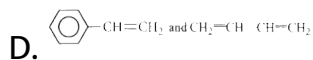
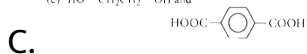
Answer: C

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24. Which one of the following sets forms the biodegradable polymer?



(c) $HO - CH_2CH_2 - OH$ and



Answer: B

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25. Which of the following statements about DNA is not correct?

- A. It has a double helix structure.
- B. It undergoes replication
- C. The two strands in a DNA molecule are exactly similar.
- D. It contains the pentose sugar, 2-deoxyribose

Answer: C



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26. Current is passed through two cells connected in series, the first cell contains $X(NO_3)_3(aq)$ and the second cell contains $Y(NO_3)_2(aq)$. The relative atomic masses of X and Y are in the ratio 1 : 2. What is the ratio of the liberated mass of X to that of Y?

A. 3:2

B. 1:2

C. 1:3

D. 3:1

Answer: C



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27. Which of the following statements is false?

A. The lower the concentration of D.O., the more polluted is the water sample.

B. The tolerable limit of lead in drinking water is 50 ppb.

C. Water is considered pure if it has BOD less than 5 ppm.

D. In COD determination, the pollutants resistant to microbial oxidation are not oxidised by oxidising agents like $K_2Cr_2O_7$.

Answer: D



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28. The correct descending order of the heat liberated (in kJ) during the neutralisation of the acids CH_3COOH (W), HF (X), HCOOH(Y) and HCN (Z) under identical conditions is (Given K of $CH_3COOH = 1.8 \times 10^{-5}$, HCOOH = 1.8×10^{-4} , HCN = 4.9×10^{-10} and $HF = 3.2 \times 10^{-4}$)

A. $Y > X > Z > W$

B. $X > Y > W > Z$

C. $W > X > Y > Z$

D. $Z > W > Y > X$

Answer: B



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29. On addition of 1 ml solution of 10% NaCl to 10 mL gold sol in the presence of 0.025 g of starch, the coagulation is just prevented. Starch has the gold number

A. 0.025

B. 0.25

C. 0.5

D. 25

Answer: D



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30. The brown ring test for nitrates depends on

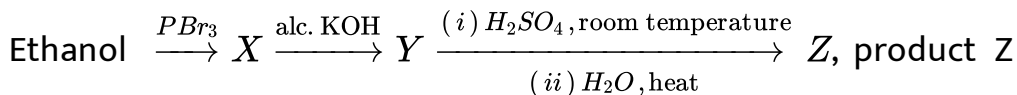
- A. the reduction of nitrate to nitric oxide
- B. oxidation of nitric oxide to nitrogen dioxide
- C. reduction of ferrous sulphate to iron
- D. oxidising action of sulphuric acid

Answer: A

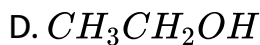
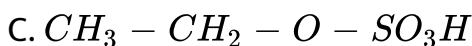
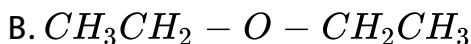
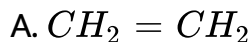


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31. Consider the following reactions,



is



Answer: D



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32. Water and chlorobenzene are immiscible liquids. Their mixture boils at $90^\circ C$ under a reduced pressure of 7.82×10^4 Pa. The vapour pressure of pure water at $90^\circ C$ is 7.03×10^4 Pa. On

weight per cent basis, chlorobenzene in the distillate is equal to
(mol. wt. of chlorobenzene is 112.5 g mol^{-1})

A. 50

B. 60

C. 70

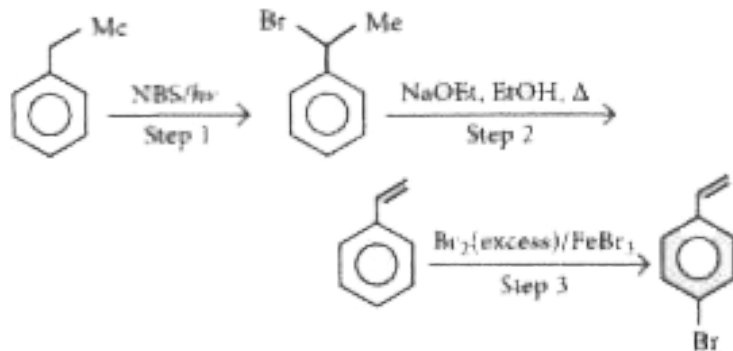
D. 80

Answer: C



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33. In the following reaction sequence, which of the following steps is wrong?

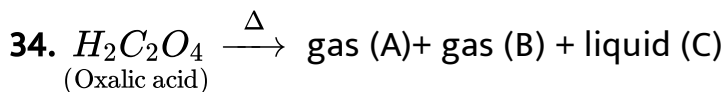


- A. Step 3
- B. Step 2
- C. Step 1
- D. None of these

Answer: A

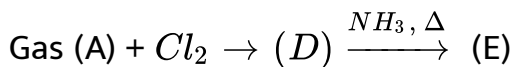


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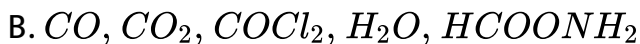
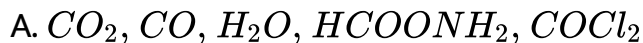


Gas (A) burns with a blue flame and is oxidised to gas (B). Gas (B)

turns lime water milky .



A,B,C,D,E are respectively

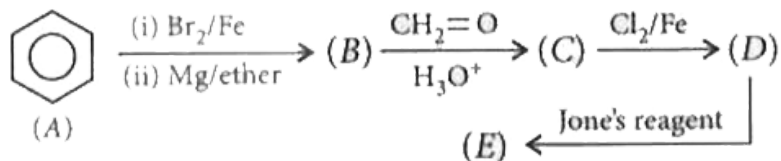


Answer: C

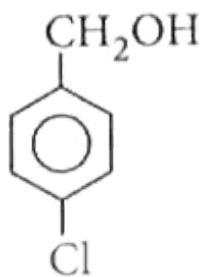


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35. Consider the following sequence of reactions :



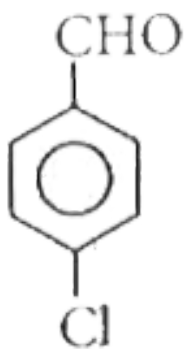
Identify E.



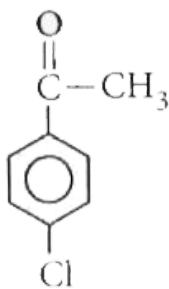
A.



B.



C.



D.

Answer: C

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36. In any group second period element exhibits anomalous properties. Correct statements about this is/are

A. generally maximum covalence of the first member of each group cannot exceed four

B. the first member of p-block element displays greater ability to form $p\pi - p\pi$ multiple bonds to itself and to the other

second period elements, compared to subsequent members of the group

C. anomalous behaviour is due to small size, large charge/radius ratio and high electronegativity of the elements

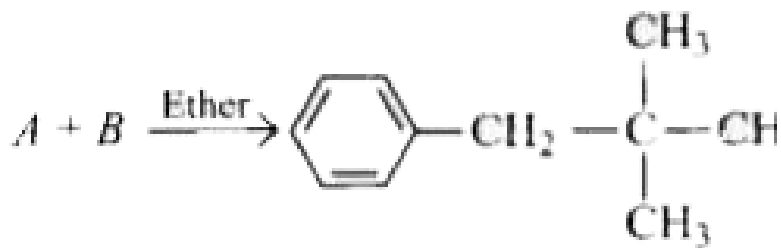
D. Lithium exhibits diagonal relationship with aluminium.

Answer: A::C



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37. Which set of reactants A and B should be used to get best yield of given product?



- A. PhLi and neopentyl chloride
- B. t-BuMgBr and benzyl bromide
- C. PhMgBr and neopentyl bromide
- D. Benzylchloride and t-butyl chloride

Answer: B

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38. The rate constant of a reaction is given by

$k = 2.1 \times 10^{10} \exp(-2700/RT)$. It means that

A. $\log k$ versus $\frac{1}{T}$ will be a straight line with slope
$$= \frac{-2700}{2.303R}$$

B. $\log k$ versus $\frac{1}{T}$ will be a straight line with intercept on axis
 $= 10.32$

C. When T becomes infinite, $k = 2.1 \times 10^{10}$

D. k is independent of temperature

Answer: A::B::C



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39. Which relation is/are correct for an aqueous dilute solution of K_3PO_4 if its degree of dissociation is α ?

A.
$$\frac{\Delta P}{P^\circ} = \frac{\text{Molality} \times 18 \times (1 + 3\alpha)}{1000}$$

B.
$$\Delta T_{f(\text{obs})} = K_f \times \text{molality} \times (1 + \alpha)$$

$$C. \frac{\Delta P}{P^\circ} = \frac{\Delta T_{f(\text{obs})} \times 18}{K_f \times 1000}$$

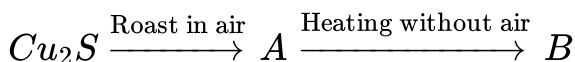
$$D. M_w \text{ of } K_3PO_4 = M_{w_{\text{obs}}} \times (1 + 3\alpha)$$

Answer: A::C::D



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40. Consider the following steps :



Which of the following is/are the correct statement(s)?

A. It involves self-reduction.

B. A is only Cu_2O and B is a mixture of Cu and SO_3

C. A is mixture of Cu_2O and Cu_2S and B is a mixture of Cu and SO_2 .

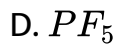
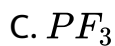
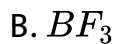
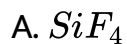
D. The solidified copper obtained has blistered appearance.

Answer: A::D



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41. Of the following molecules, the one which has permanent dipole moment is



Answer: C



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42. The degree of hardness of water is usually expressed in terms of

- A. ppm by weight of $MgSO_4$
- B. g/L of $CaCO_3$ and $MgCO_3$ present
- C. ppm by weight of $CaCO_3$ irrespective of whether it is actually present.
- D. ppm of $MgCO_3$ actually present in water.

Answer: C



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43. For a certain process, $\Delta H=280$ kJ and $\Delta S = 140JK^{-1}mol^{-1}$. What is the minimum temperature at which the process will be spontaneous?

A. 2000 K

B. 1200 K

C. 1400 K

D. 1420 K

Answer: A



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44. Which of the following reagents can separate nitric oxide from nitrous oxide?

A. Sodium nitroprusside solution

B. Ferrous sulphate solution

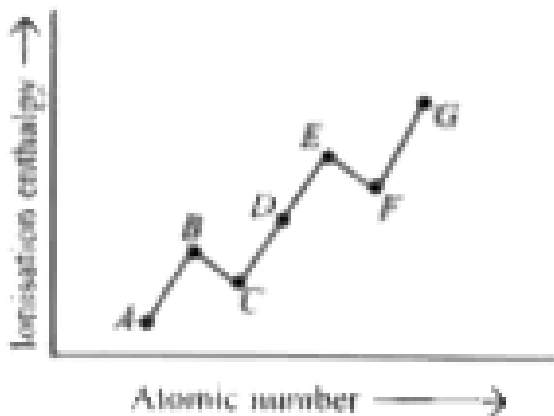
C. Nessler's solution

D. Tollens' reagent

Answer: B

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45. The ionisation enthalpy of second period elements vary with atomic number as



The elements present at points B and E are respectively

- A. Be,C
- B. B,N
- C. Be,O

D. Be,N

Answer: D

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46. Novolac, the linear polymer used in paints is

- A. a copolymer of 1, 3-butadiene and styrene
- B. obtained by the copolymerization of methyl methacrylate
- C. an initial product obtained by the condensation of phenol and formaldehyde
- D. a copolymer of melamine and formaldehyde.

Answer: C

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47. A 400 mg iron capsule contains 100 mg of ferrous fumarate, $(CHCOO)_2Fe$. The percentage of iron present in it is approximately

A. 33 %

B. 25 %

C. 14 %

D. 8 %

Answer: D



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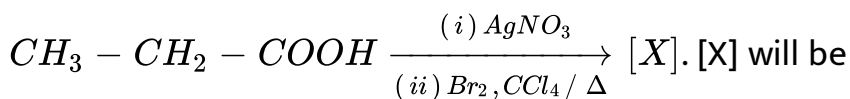
48. The major product obtained in the dehydrohalogenation of neo-pentyl bromide with alcoholic KOH is

- A. 2-methylbut-1-ene
- B. 2,2-dimethylbut-1-ene
- C. 2-methylbut-2-ene
- D. but-2-ene.

Answer: C

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49. In the given reaction:



- A. ethyl bromide
- B. propyl bromide
- C. propyl propanoate
- D. all of these.

Answer: A



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50. The number of neutrons accompanying the formation of

${}_{54}^{139}\text{Xe}$ and ${}_{38}^{94}\text{Sr}$ from the absorption of slow neutrons by ${}_{92}^{235}\text{U}$

followed by nuclear fission is

A. 0

B. 2

C. 1

D. 3

Answer: D



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51. 3.0 moles of PCl_5 kept in 1 L closed reaction vessel was allowed to attain equilibrium at 380 K. The composition of the mixture i.e., PCl_5 and PCl_3 respectively at equilibrium is ($K_c = 1.80$)

A. 1.71, 2.25

B. 1.59, 1.61

C. 1.41, 1.59

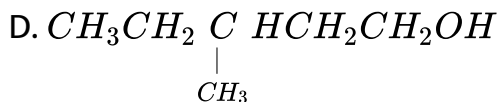
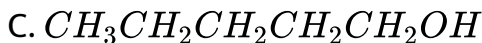
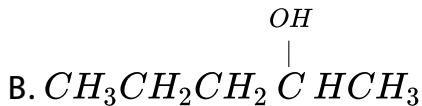
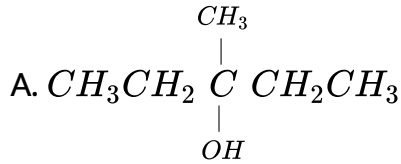
D. 1.41, 1.41

Answer: C



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52. Among the following compounds which can be dehydrated very easily?

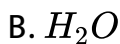
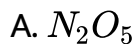


Answer: A



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53. In the reaction,



D. N_2O_3

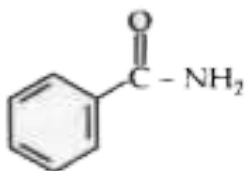
Answer: A

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54. Sodium extract of Lassaigne's solution is treated with $FeSO_4$, $FeCl_3$ and dil. H_2SO_4 to get a blood red colour. Which of the following is probable organic compound?



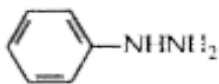
B.



C.



D.



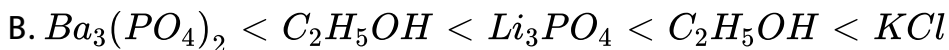
Answer: A



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55. The order of increasing freezing point of

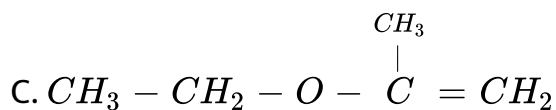
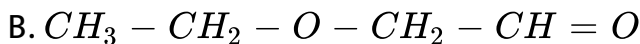
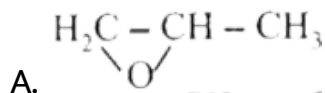
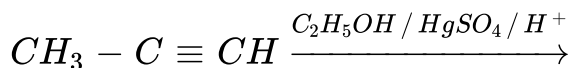
C_2H_5OH , $Ba_3(PO_4)_2$, Na_2SO_4 , KCl and Li_3PO_4 is



Answer: D

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56. The end product of the following reaction would be



Answer: C

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57. Equal volumes of three acid solutions of pH 3, 4 and 5 are mixed in a vessel. What will be the H^+ ion concentration in the mixture?

A. $3.7 \times 10^{-3} \text{ M}$

B. $1.11 \times 10^{-3} \text{ M}$

C. $1.11 \times 10^{-4} \text{ M}$

D. $3.7 \times 10^{-4} \text{ M}$

Answer: D



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58. Which of the following structures for a nucleotide is not correct?

A. Cytosine-Ribose-Phosphate

B. Uracil-2-Deoxyribose-Phosphate

C. Uracil-Ribose-Phosphate

D. Thymine-2-Deoxyribose-Phosphate

Answer: B



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59. If the total energy of an electron in a hydrogen atom in excited state is -3.4 eV, then the de Broglie wavelength of the electron is

A. 6.6×10^{-12} m

B. 3×10^{-10} m

C. 6.6×10^{-10} m

D. 9.3×10^{-12} m

Answer: C



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60. Extraction of Al from bauxite is carried out by various stages

in Hall's process which involves

I removal of sand and heavier impurities by gravity separation method.

II. removal of magnetic impurities by magnetic separator.

III. fusing the concentrated finely divided ore with Na_2CO_3 and $CaCO_3$ and then extracting with H_2O .

IV. ignition at $1100^\circ C$.

V. passing CO_2

Correct order of these steps are

A. I,II,III,V,IV

B. II,I,III,V,IV

C. V,IV,III,I,II

D. I,III,V,IV,II

Answer: B



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61. Phenolic antibacterial used in body deodorants is

A. 2,4-dichlorophenol

B. p-chloro-m-xyleneol

C. p-chlorophenol

D. p-nitro-m-xyleneol

Answer: B



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62. Two isomers X and Y with the formula $Cr(H_2O)_5ClBr_2$ were taken for experiment on depression in freezing point. It was found that one mole of X gave depression corresponding to 2 moles of particles and one mole of Y gave depression corresponding to 3 moles of particles. The structural formulae of X and Y respectively are

- A. $[Cr(H_2O)_5Cl]Br_2, [Cr(H_2O)_4Br_2]ClH_2O$
- B. $[Cr(H_2O)_5Cl]Br_2, [Cr(H_2O)_3ClBr_2]2H_2O$
- C. $[Cr(H_2O)_5Br]BrCl, [Cr(H_2O)_4ClBr]BrH_2O$
- D. $[Cr(H_2O)_4Br_2]Cl \cdot H_2O, [Cr(H_2O)_5Cl]Br_2$

Answer: D



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63. Identify the correct statement for the adsorption of a real gas on charcoal at 1 atm, $15^{\circ}C$.

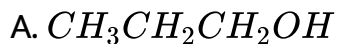
- A. Decrease in pressure increases the extent of adsorption
- B. Gases which are easily liquefiable, are adsorbed more in quantity
- C. Gases which have a behaviour similar to an inert gas are adsorbed more
- D. None of these

Answer: B



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64. The reaction of $CH_2 = CHCHO$ with $LiAlH_4$ gives



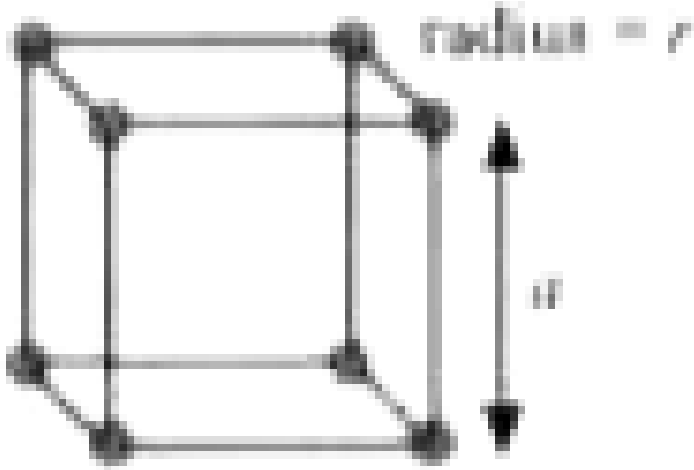
Answer: B



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65. The unit cell in a body centred cubic lattice is given in the figure. Each sphere has a radius 'r' and the cube has side 'a'. What

fraction of the total cube volume is empty?



A. $1 - \frac{8}{3} \frac{\pi r^3}{a^3}$

B. $\frac{8}{3} \frac{\pi r^3}{a^3}$

C. $\frac{r}{a}$

D. $2 - \frac{4}{3} \frac{\pi r^3}{a^3}$

Answer: A



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66. Which of the following is not an example of green chemistry?

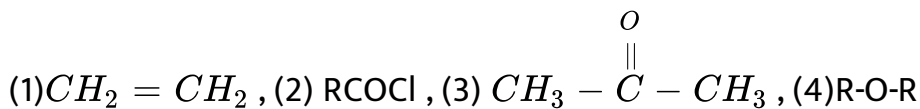
- A. Catalytic dehydrogenation of the diethanol amine without using cyanide and formaldehyde.
- B. Replacement of CFCs by CO_2 as blowing agent in the manufacture of polystyrene foam sheets.
- C. Reacting methylamine and phosgene to produce methyl isocyanate.
- D. Replacement of organotins by 'sea-nine' and as fouling compound in sea marines

Answer: C



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67. Which among the following compounds behaves both as an electrophile as well as a nucleophile?



A. Only 1

B. 1 and 2

C. 3 and 4

D. 2,3 and 4

Answer: B



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68. For the reaction , $A \rightarrow B$, $k_1 = 10^8 e^{-\frac{6000}{8.34T}}$ and

$P \rightarrow Q$, $k_2 = 10^{10} e^{-\frac{8000}{8.34T}}$

The temperature at which $k_1 = k_2$ is

A. 386 K

B. 221 K

C. 26 K

D. 52 K

Answer: D



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69. The E° for the cell reaction ,

$Cu_{(s)} + 2Ag_{(aq)}^+ \rightarrow Cu_{(aq)}^{2+} + 2Ag_{(s)}$ is 0.46 V , what is its

equilibrium constant ?

A. 15.6

B. 4.6×10^{16}

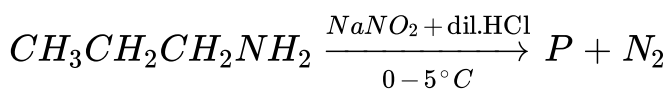
C. 3.6×10^{15}

D. 1.56×10^{15}

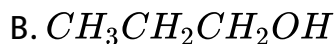
Answer: C

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70. In the reaction ,



The product (P) formed is



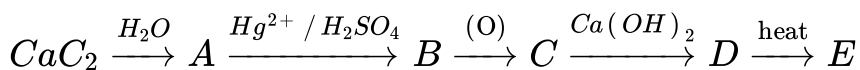
C. both (a) and (b)

D. None of these

Answer: B

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71. In the following sequence of reactions, the end product is



- A. acetaldehyde
- B. formaldehyde
- C. acetic acid
- D. acetone

Answer: D

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72. The freezing point of a solution containing 0.2 g of acetic acid in 20.0 g benzene is lowered by 0.45°C . The degree of association of acetic acid in benzene is (Assume acetic acid dimerises in benzene and K_f for benzene = $5.12\text{ K kg mol}^{-1}$) ?

A. 94.6 %

B. 54.9 %

C. 78.2 %

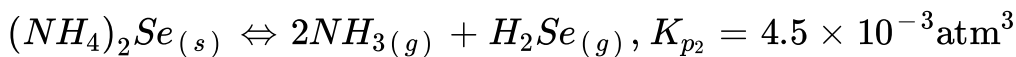
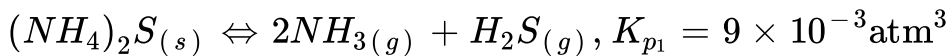
D. 100 %

Answer: A



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73. Ammonium sulphide and ammonium selenide on heating dissociates as



The total pressure over the solid mixture at equilibrium is

- A. 0.15 atm
- B. 0.3 atm
- C. 0.45 atm
- D. 0.6 atm

Answer: C



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74. The pH of a solution of H_2O_2 is 6.0. Some chlorine gas is bubbled into this solution. Which of the following is correct?

- A. Hydrogen gas is liberated.

B. The pH of resultant solution becomes 8.0.

C. The pH of resultant solution becomes less than 6.0 and oxygen gas is liberated

D. Cl_2O is formed in the resultant solution.

Answer: C



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75. An aromatic compound 'X' with molecular formula $C_9H_{10}O$ gives the following chemical tests :

(i) forms 2, 4-DNP derivative

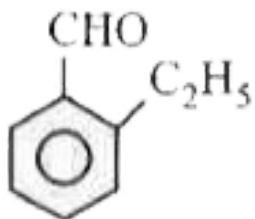
(ii) reduces Tollens' reagent

(iii) undergoes Cannizzaro reaction,

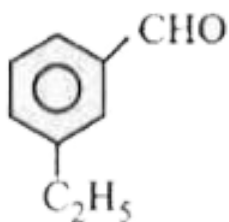
(iv) on vigorous oxidation, 1, 2-benzenedicarboxylic acid is

obtained

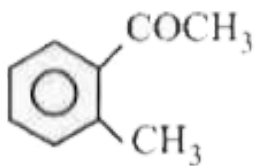
Identify the compound X.



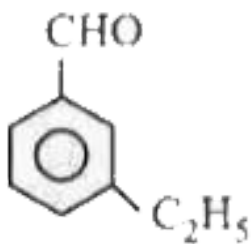
A.



B.



C.

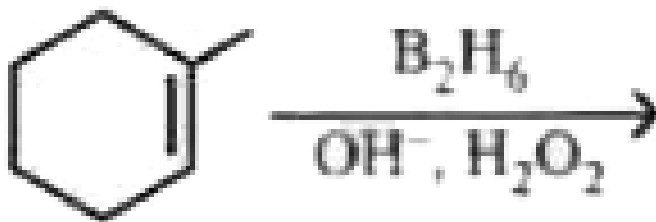


D.

Answer: A



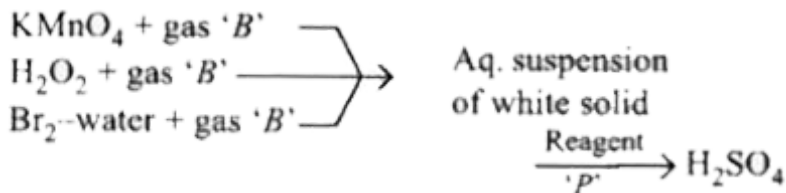
76. Choose the inappropriate statement(s) regarding the following reaction :



- A. Syn addition of -H (from BH_3) and -OH (from solution) occurs.
- B. Syn addition of -H (from BH_3) and -OH (from H_2O_2) occurs.
- C. The product is optically active
- D. Addition follows anti-Markownikoff's orientation.

Answer: A::C

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Which of the following reagents can be used as 'P' ?

A. O_3

B. Excess Cl_2 water

C. Conc. HNO_3

D. HCl

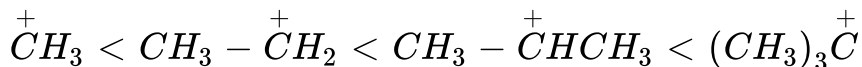
Answer: A::B::C

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78. Which of the following represents the correct order?

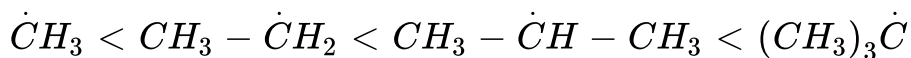
A. Stability

:



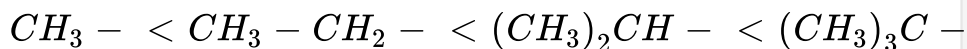
B. Stability

:



C. Hyperconjugation

:



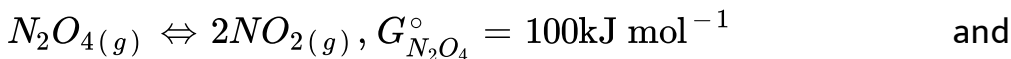
D. Basic nature: $\bar{C}H_3 > \bar{N}H_2 > \bar{O}H > \bar{F}$

Answer: A::B::C::D



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79. For the equilibrium at 298 K:



$G_{NO_2}^\circ = 50\text{kJ mol}^{-1}$. If 5 moles of N_2O_4 and 2 moles of NO_2

are taken initially in one litre container then which statements are correct?

A. Reaction proceeds in forward direction

B. $K_c = 1$

C. $\Delta G = -0.55\text{ kJ}$, $\Delta G^\circ = 0$

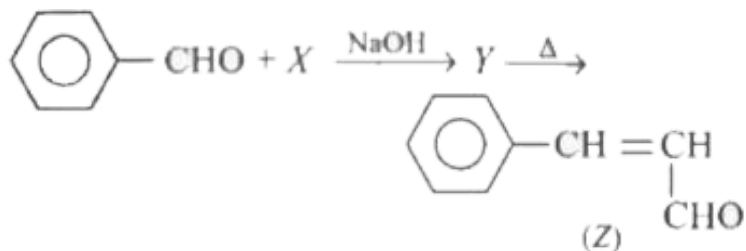
D. At equilibrium $[N_2O_4] = 4.894\text{ M}$ and $[NO_2] = 2.212\text{ M}$

Answer: A::B::C::D



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80. Which of the following statement(s) is/are correct for the reaction given below?



- A. It is an example of aldol condensation
- B. $X=\text{HCHO}$, $Y=\text{Acetal}$
- C. $X=\text{CH}_3\text{CHO}$, $Y=3\text{-Hydroxy-3-phenyl propanaldehyde}$
- D. It is Claisen-Schmidt condensation.

Answer: A::C

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