FT - 23 (FR) (NEET - CBSE, GSEB) (25 - 04 - 2026)

ANSWER KEY

Q	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Ans	3	3	3	1	3	3	2	2	2	1	2	2	4	4	3	2	3	2	3	1
Q	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Ans	1	1	2	3	2	3	1	4	4	2	3	2	2	3	4	4	3	3	4	3
Q	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Ans	3	2	1	2	2	1	3	1	3	2	3	4	1	4	2	3	3	3	3	4
Q	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
Ans	3	2	3	3	1	1	1	4	4	4	3	3	1	2	4	2	3	2	1	1
Q	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
Ans	1	3	2	1	4	4	1	1	2	1	3	4	3	1	2	2	2	3	1	2
Q	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
Ans	1	1	3	4	4	2	1	1	3	4	2	4	3	2	3	2	3	2	3	3
Q	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140
Ans	1	2	1	1	3	1	3	3	4	3	4	2	2	1	1	1	2	2	4	1
Q	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160
Ans	4	1	3	2	4	4	4	3	1	1	3	2	3	1	4	1	1	2	1	1
Q	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180
Ans	1	2	1	1	3	4	4	2	1	3	4	2	4	3	4	4	2	2	2	2

PHYSICS:

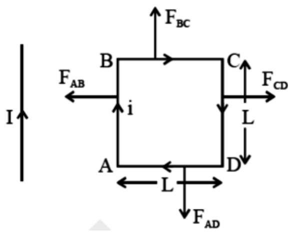
1. Sol. (3)

Energy received = Intensity × Area × Time

= 20 × 20 × 60

= 24 × 10^3 J

2. Sol. (3)



$F_N = F_{AB} - F_{CD}$

(F_{BC} and F_{AD} cancel out each other)

$$= \frac{\mu_0 I i L}{2\pi\left(\frac{L}{2}\right)} - \frac{\mu_0 I i L}{2\pi\left(\frac{3L}{2}\right)} = \frac{2\mu_0 I i L}{3\pi}$$

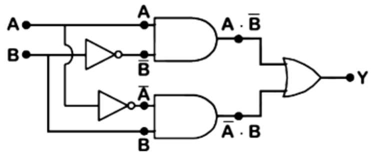
3. Sol. (3)

At temperature much lower than 0°C, graph deviates considerably from a straight line. Option (3) is correct.

4. Sol. (1)

Since, electric potential is found throughout constant, hence electric field, $E = -\frac{dV}{dr} = 0$.

5. Sol. (3)



$$Y = (A \cdot \bar{B} + \bar{A} \cdot B)$$

6. Sol. (3)

$i_{rms} = c\omega\varepsilon_{rms}$

$c = 40 \times 10^{-6} F$

$\omega = 2\pi f = 100\pi$

$\varepsilon_{rms} = 200V$

$\therefore \quad i_{rms} = 200 \times 40 \times 10^{-6} \times 2\pi \times 50$

= 2.5 A

7. **Sol. (2)**

$$PM = \rho RT$$

$$\Rightarrow \quad \rho = \frac{PM}{RT}$$

$$P = 249 \times 10^3 \, N/m^2$$

$$M = 2 \times 10^{-3} \, kg$$

$$T = 300 \, K$$

$$\therefore \quad \rho = \frac{(249 \times 10^3)(2 \times 10^{-3})}{8.3 \times 300} = \frac{0.2kg}{m^3}$$

8. **Sol. (2)**

$$\begin{array}{r} 9.99 \\ -\ 0.0099 \\ \hline 9.9801\text{ m} \end{array}$$

In subtraction, answer should be reported to least number of decimal places, so answer should be 9.98 m.

9. **Sol. (2)**

According to the formula

$$\lambda = \frac{1}{\sqrt{2} n \pi d^2}$$

10. **Sol. (1)**

$$\chi_m = 599$$

$$\mu_r = 1 + \chi_m = 600$$

$$\mu = \mu_r \mu_0$$

$$\mu = 600 \times 4\pi \times 10^{-7}$$

$$\mu = 2400\pi \times 10^{-7}$$

$$\mu = 2.4\pi \times 10^{-4} \, T\, m\, A^{-1}$$

11. **Sol. (2)**

$$V = \frac{kp\cos\theta}{r^2}$$

$$V = \frac{9 \times 10^9 \times 16 \times 10^{-9} \times \cos 60}{0.36}$$

$$V = 200 \, V$$

12. **Sol. (2)**

$$mg_h = \frac{mg_0}{\left(1 + \frac{h}{r}\right)^2}$$

$$W = \frac{72}{\left(1 + \frac{R/2}{R}\right)^2}$$

$$W = \frac{72}{(3/2)^2} = \frac{4}{9} \times 72 = 32N$$

13. **Sol. (4)**

For metals temperature coefficient of resistance is positive while for insulators and semiconductors, temperature coefficient of resistance is negative.

14. **Sol. (4)**

$$v = \frac{3}{2} v_0$$

$$v' = \frac{v}{2} = \frac{3}{4} v_0$$

$\because \quad v' < v_0$

$\therefore$ No photoelectric emission will take place.

15. **Sol. (3)**

When L is removed,

$$\tan\phi = \frac{|X_C|}{R} \Rightarrow \tan\frac{\pi}{3} = \frac{X_C}{R} \qquad \text{..... (i)}$$

When C is removed,

$$\tan\phi = \frac{|X_L|}{R} \Rightarrow \tan\frac{\pi}{3} = \frac{X_L}{R} \qquad \text{..... (ii)}$$

From (i) and (ii), $X_L = X_C$

Since, $X_L = X_C$, the circuit is in resonance.

Z = R

Power factor = $\cos\phi = \frac{R}{Z} = 1$

16. **Sol. (2)**

Electric field outside a conducting sphere

$$E = \frac{1}{4\pi \in_0} \frac{Q}{r^2}$$

$$= \frac{9 \times 10^9 \times 3.2 \times 10^{-7}}{225 \times 10^{-4}}$$

$$= 0.128 \times 10^6$$

$$= 1.28 \times 10^5 \, N/C$$

17. **Sol. (3)**

$$\vec{\tau} = \vec{r} \times \vec{F}$$

$$\vec{\tau} = 2\hat{k} \times 3\hat{j}$$

$$\vec{\tau} = -6\hat{i} \, Nm$$

18. **Sol. (2)**

Mobility, $\mu = \frac{v_d}{E}$

$= \frac{7.5 \times 10^{-4}}{3 \times 10^{-10}}$

$= 2.5 \times 10^{6}\ m^2 V^{-1} s^{-1}$

19. **Sol. (3)**

Light ray emerges normally from another surface, hence e(angle of emergence) = 0

$r_2 = 0$

$r_1 + r_2 = A$

$\Rightarrow \quad r_1 = A$

Applying Snell's law on first surface

$1.\sin i = \mu \sin r_1$

$\Rightarrow \quad \sin i = \mu \sin A$

For small angles ($\sin\theta \approx \theta$)

Hence $i = \mu A$.

20. **Sol. (1)**

$\Delta Q = ms\Delta T$

$\Delta Q = \frac{4}{3}\pi r^3 \rho s \Delta | T$

$\frac{\Delta Q_1}{\Delta Q_2} = \left(\frac{r_1}{r_2}\right)^3$

$= (1.5)^3$

$= \frac{27}{8}$

21. **Sol. (1)**

$U_{92}^{235} + {}_0^1 n \rightarrow Kr_{36}^{89} + 3n_0^1 + X_Z^A$

$92 + 0 = 36 + Z$

$\Rightarrow \quad Z = 56$

$235 + 1 = 89 + 3 + A$

$\Rightarrow \quad A = 144$

So, ${}^{144}_{56}\mathrm{B}a$ is generated.

22. **Sol. (1)**

If $y = A\sin\omega t$

Then $v = \frac{dy}{dt}$

$v = A\omega\cos\omega t$

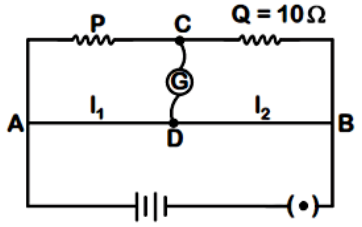
$a = \frac{dv}{dt}$

$a = -A\omega^2 \sin(\omega t)$

$a = -A\omega^2 \sin(\omega t + \pi)$

So phase difference between displacement and acceleration is π.

23. **Sol. (2)**



Initially, $\frac{P}{10} = \frac{l_1}{l_2} = \frac{3}{2}$

$\Rightarrow \quad P = \frac{30}{2} = 15\,\Omega$

Now Resistance, $R = \frac{\rho l}{A}$

$\frac{R_1}{R_2} = \frac{l_1}{l_2}$

$\Rightarrow \quad \frac{15}{1} = \frac{1.5}{l_2}$

$l_2 = 0.1$ m

$= 1.0 \times 10^{-1}$ m

24. **Sol. (3)**

Force of surface tension balances the weight of water in capillary tube.

$F_S = 2\pi rT\cos\theta = mg$

Here, T and θ are constant

So, $m \propto r$

Hence, $\frac{m_2}{5.0} = \frac{2r}{r}$

$\Rightarrow \quad m_2 = 10.0$ g.

25. **Sol. (2)**

In an electromagnetic wave, half of the intensity is provided by the electric field and half by the magnetic field.

Hence required ratio should be 1 : 1.

26. **Sol. (3)**

Fringe width $\beta = \frac{\lambda D}{d}$

Now, $d' = \frac{d}{2}$ and D' = 2D

So, $\beta' = \frac{\lambda(2D)}{d/2} = \frac{4\lambda D}{d}$

$\beta' = 4\beta$

27. **Sol. (1)**

Magnetic field at centre of solenoid = $\mu_0 nI$

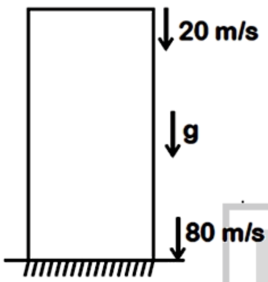
$$n = \frac{N}{L} = \frac{100}{50 \times 10^{-2}} = 200\, turns/m$$

I = 2.5 A

B = $4\pi \times 10^{-7} \times 200 \times 2.5$

= $6.28 \times 10^{-4} \times$ T

28. **Sol. (4)**



$$v^2 = u^2 + 2gh$$

v = 80 m/s

u = 20 m/s

$$h = \frac{v^2 - u^2}{2g} = \frac{6400 - 400}{20} = 300m$$

29. **Ans. (4)**

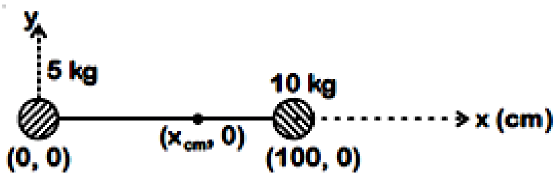
Bohr model is only valid for single electron species. Singly ionised neon atom has more than one electron in orbit. Hence, Bohr model is not valid.

30. **Sol. (2)**

For monoatomic gases, degree of freedom is 3. Hence average thermal energy per molecule is

$$KE_{avg} = \frac{3}{2} k_B T$$

31. **Sol. (3)**



$$x_{cm} = \frac{m_1 x_1 + m_2 x_2}{m_1 + m_2}$$

$$= \frac{5 \times 0 + 100 \times 10}{5 + 10} = \frac{200}{3} = 66.66\text{ cm}$$

$x_{cm} \cong 67 cm$

32. **Sol. (2)**

Difference of f_A and f_B is 6 Hz

If tension decreases, f_B decreases and becomes f_B'.

Now, difference of f_A and f_B' = 7 Hz (increases)

So, $f_A > f_B$

$f_A - f_B$ = 6 Hz

f_A = 530 Hz

f_B = 524 Hz (original)

33. **Sol. (2)**

Entire system is thermally insulated. So, no heat exchange will take place. Hence, process will be adiabatic.

34. **Sol. (3)**

$C = KC_0$

$K = \frac{C}{C_0} = \frac{30}{6} = 5$

$K = \frac{\varepsilon}{\varepsilon_0}$

$\varepsilon = K\varepsilon_0$

$= 5 \times 8.85 \times 10^{-12}$

$= 0.44 \times 10^{-10} C^2 N^{-1} m^{-2}$

35. **Sol. (4)**

$$\lambda = \frac{12.27}{\sqrt{V}} \mathring{A}$$

$$\sqrt{V} = \frac{12.27 \times 10^{-10}}{1.227 \times 10^{-11}} = 10^2$$

$\therefore$ V = 10^4 volts

36. **Sol. (4)**

Stress $= \frac{Mg}{A}$

Strain $= \frac{\Delta L}{L} = \frac{L_1 - L}{L}$

Young's modulus = $\frac{\text{Stress}}{\text{Strain}} = \frac{MgL}{A(L_1 - L)}$

37. The Brewsters angle i_b for an interface should be:

(1) $0° < i_b < 30°$ (2) $30° < i_b < 45°$

(3*) $45° < i_b < 90°$ (4) $i_b = 90°$

Sol. **(3)**

$\mu = \tan i_b$

$1 < \mu < \infty$

$1 < \tan i_b < \infty$

$\tan^{-1}(1) < i_b < \tan^{-1}(\infty)$

$45° < i_b < 90°$

38. **Sol.(3)**

$$a = \frac{(m_1 - m_2)g}{(m_1 + m_2)}$$ where $m_1 > m_2$

$$a = \frac{(6-4)g}{(6+4)} = \frac{g}{5}$$

Note : Here no option is given according to acceleration of COM of the system.

39. **Sol. (4)**

$$\text{Stress} = \frac{\text{Force}}{\text{Area}}$$

$$= \frac{[MLT^{-2}]}{[L^2]}$$

$$= [ML^{-1}T^{-2}]$$

40. **Sol. (3)**

$$\text{Least count} = \frac{\text{Pitch}}{\text{No. of divisions on circular scale}}$$

$$0.01\,\text{mm} = \frac{\text{Pitch}}{50}$$

Pitch = 0.5 mm

41. **Sol. (3)**

1 eV = 1.6×10^{-19} J

$$1\,\text{J} = \frac{1}{1.6\times10^{-19}}\,\text{eV}$$

$$10^{-20}\,\text{J} = \frac{10^{-20}}{1.6\times10^{-19}}\,\text{eV}$$

$$= 0.06\,\text{eV}$$

42. **Sol. (2)**

Power = Energy per fission × No. of fissions per second

$= 200 \times 10^6 \times 1.6 \times 10^{-19} \times 10^{20} \approx 32 \times 10^8$ w

43. **Sol. (1)**

$$\theta_R = 1.22\frac{\lambda}{d}; \lambda = 600\times10^{-9}\,m\; d = 2\,m$$

$$= \frac{1.22\times600\times10^{-9}}{2}$$

$$\theta = 3.66\times10^{-7}\,rad$$

44. **Sol. (2)**

Due to reverse biasing, the width of the depletion region increases.

45. **Sol.(2)**

From mass-energy equivalence.

E $= mc^2$

$= 0.5 \times 10^{-3} \times (3 \times 10^8)^2$

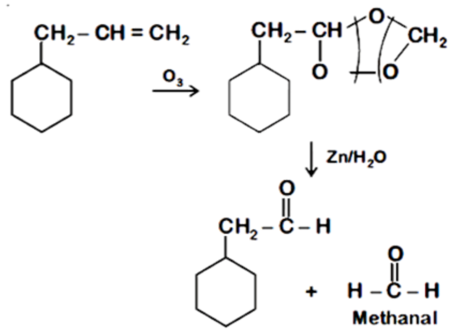
$= 4.5 \times 10^{13}$ J.

CHEMISTRY:

46. Sol. (1)

Aliphatic and aromatic primary amines give carbylamine reaction.

47. Sol. (3)



48. Sol. (1)

Mixture of CO and H_2 gases is known as water gas or synthesis gas.

Temporary hardness of water is due to bicarbonates of calcium and magnesium.

Diborane (B_2H_6) is an electron deficient hydride.

H_2O_2 is non-planar molecule having open book like structure.

49. Sol. (3)

$\Delta T_f = k_f m$

$= 5.12\ (K.kg\ mol^{-1}) \times 0.078\ (mol\ kg^{-1})$

$= 0.399\ K \approx 0.40\ K$

50. Sol. (2)

During the electrolysis of dil. sulphuric acid using Pt electrodes following reaction will take place.

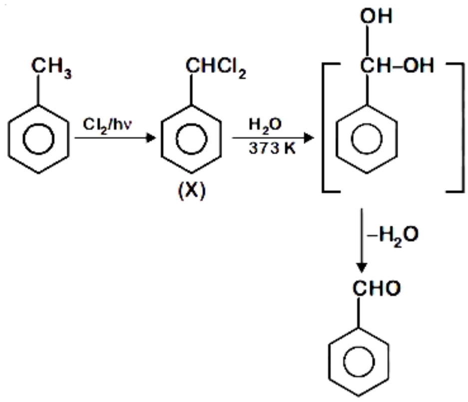
At cathode :

$4H^+ (aq) + 4e^- \rightarrow 2H_2 (g)$

At Anode :

$2H_2O(l) \rightarrow O_2(g) + 4H^+(aq) + 4e^-$

51. Sol. (3)



52. Sol. (4)

Number of Mg atoms = $\dfrac{1}{24} \times N_A$

Number of O atoms = $\dfrac{1}{32} \times 2 \times N_A$

Number of Li atoms = $\dfrac{1}{7} \times N_A$

Number of Ag atoms = $\dfrac{1}{108} \times N_A$

53. Sol. (1)

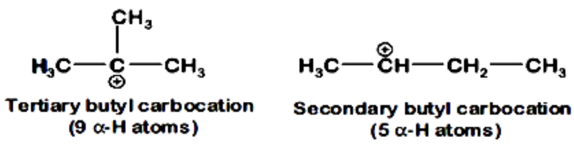
HF On moving top to bottom

HCl Size of halogen atom increases.

HBr H-X bond length increases

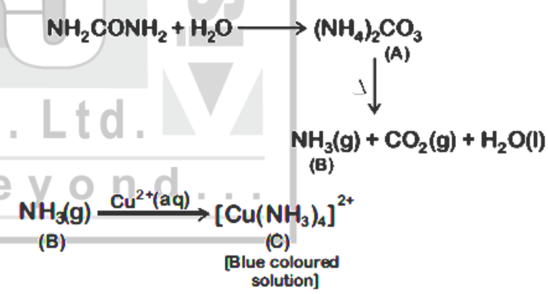
HI Bond dissociation enthalpy decreases

54. Sol. (4)



More the number of α -H atoms, more will be the hyperconjugation effect hence more will be the stability of carbocation.

55. Sol. (2)



56. Sol. (3)

$$n_{N_2} = \frac{7}{28} = \frac{1}{4} = 0.25$$

$$n_{Ar} = \frac{8}{40} = \frac{1}{5} = 0.20$$

Now Applying Dalton's law of partial pressure

$$p_{N_2} = (x_{N_2})P_{Total}$$

$$= \frac{0.25}{0.45} \times 27 bar$$

$$= \frac{5}{9} \times 27 = 15 bar$$

57. **Sol.(3)**

Bartlett had taken $O_2^+ Pt\ F_6^-$ as a base compound because O_2 and Xe both have almost same ionization enthalpy. The ionization enthalpies of noble gases are the highest in their respective periods due to their stable electronic configurations.

58. **Sol. (3)**

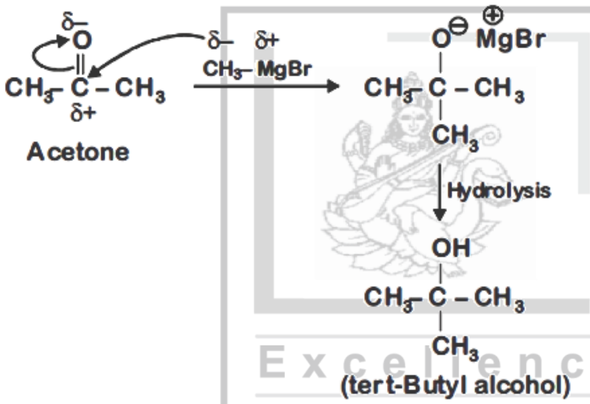
$k = \frac{2.303}{t}\log\frac{A_0}{A}$ (First order rate equation)

$4.606\times10^{-3} = \frac{2.303}{t}\log\frac{2}{0.2}$

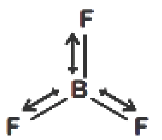
$t = \frac{2.303}{4.606\times10^{-3}}\log 10$

$= \frac{10^3}{2} = 500\sec$

59. **Sol. (3)**



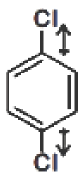
60. **Sol. (4)**



$\mu = 0$

$\mu = 0$

$\mu = 0$



$\mu = 0$

61. **Sol. (3)**

$CH_4 \Rightarrow x + 4\times1 = 0 \Rightarrow x = -4$

$CCl_4 \Rightarrow x + 4\times(-1) = 0 \Rightarrow x = +4$

$-4 \qquad\qquad +4$

$CH_4(g) + 4Cl_2(g) \rightarrow CCl_4(l) + 4HCl(g)$

Change in oxidation state of carbon is from -4 to + 4.

62. **Sol. (2)**

CO : Neutral oxide

BaO : Basic oxide

Al_2O_3 : Amphoteric oxide

Cl_2O_7 : Acidic oxide

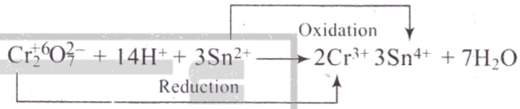
63. **Sol. (3)**

Average .rate of reaction up to 40 seconds on the basis of. the graph is $\frac{V_3 - 0}{40 - 0} = \frac{V_3}{40}$

64. **Sol. (3)**

When acidified $K_2Cr_2O_7$ solution is added to Sn^{2+} salt, Sn^{2+} changes to the Sn^{4+}

The reaction is given below

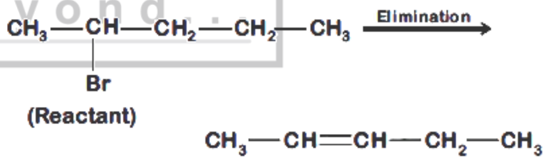


65. **Sol. (1)**

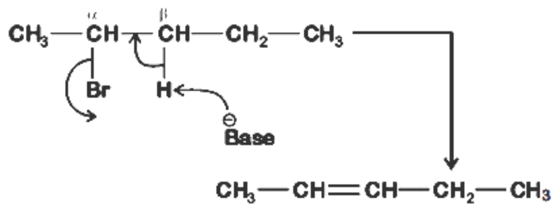
Spectrochemical series (as given in NCERT) :

$I^- < Br^- < SCN^{\ominus} < Cl^- < S^{2-} < HF^- < \overline{O}H < C_2O_4^{2-} < H_2O < NCS^{\ominus} < EDTA^{4-} < NH_3 < en < \overset{\ominus}{C}N < CO$

66. **Sol.** **(1)**



Mechanism:



Since β - hydrogen is abstracted it is β - elimination.

Since more substituted alkene is formed, it follows zaitsev's rule.

Since 'H' and 'Br' are removed, it is dehydrohalogenation.

67. **Sol. (1)**

Free expansion ⇒ $P_{ex} = 0$

∴ $w = -P_{ex}\Delta V = 0$

∵ Adiabatic process ⇒ q = 0

also, $\Delta U = q + w$ [first law of thermodynamics]

∴ $\Delta U = 0$

∵ Internal energy of an ideal gas is a function of temperature

∴ If internal energy remains constant

∴ $\Delta T = 0$

68. **Sol. (4)**

Oxidation state of Cr in CrO_4^{2-} and $Cr_2O_7^{2-}$ is +6.

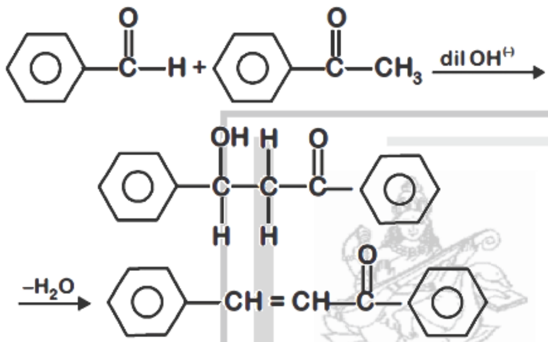
69. **Sol. (4)**

Unununium

Atomic number = 111

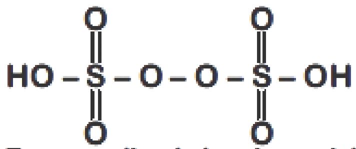
IUPAC official name : Roentgenium

70. **Sol. (4)**



In the presence of dil. $OH^{(-)}$, benzaldehyde and acetophenone will react to undergo cross-aldol condensation.

71. **Sol. (3)**

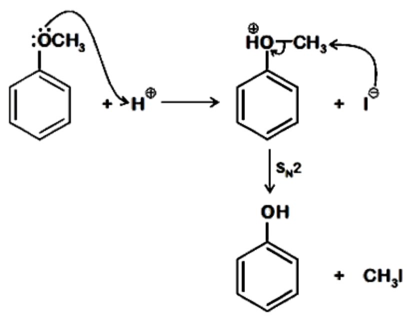


Peroxodisulphuric acid

72. **Sol. (3)**

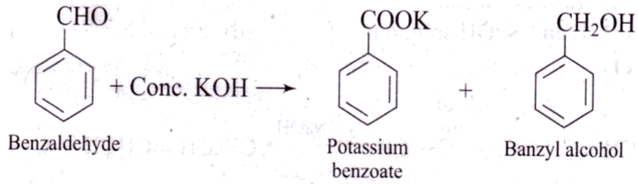
in d-block

73. **Sol. (1)**



74. **Sol. (2)**

Benzaldehyde is having no a hydrogen. So, on reaction with aqueous KOH solution, it undergo Cannizzaro's reaction. One molecule of sidehydeis reduced and other is oxidized.



75. **Sol. (4)**

Given reaction, $2Cl(g) \rightarrow Cl_2(g)$

We know that,

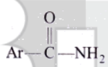
$Cl_2(g) \rightarrow 2Cl(g)$ is endothermic reaction because it requires energy to break bond.

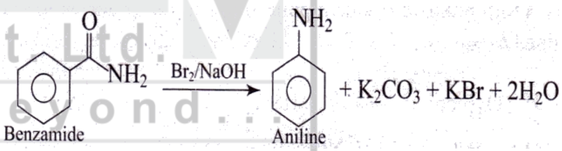
So reverse reaction is exothermic $\Delta_rH < 0$

Also, two gaseous atom combine together to form 1 gaseous molecule.

So, randomness $\Delta_rS < 0$.

76. **Sol. (2)**

Hoffmann bromamide degradation is shown by  which amide is converted into amine via undergoing intramolecular migration of phenyl group.



77. **Sol. (3)**

Wurtz reaction is used to prepare symmetrical alkanes like $R_1 - R_1$ as

$$R_1 - X + 2Na + X - R_1 \xrightarrow{DryEther} R_1 - R_1 + 2NaX$$

If R_1 and R_2 are different, then mixture of alkanes may be obtained as

$$R_1 - X + 2Na + R_2 - X \xrightarrow{DryEther} R_1 - R_1 + R_1 - R_2 + R_2 - R_2 + 2NaX$$

78. **Sol. (2)**

Heat of reaction is an extensive property.

Hence, on change of amount/concentration of reactants heat of reaction changes.

79. **Sol. (1)**

1 equivalent of any substance is deposited by 1 F of charge.

We have, 20 g calcium

$$Number of equivalents = \frac{Given mass}{Equivalent mass}$$

$$= \frac{20}{20} = 1$$

Equivalent of mass of Ca = $\frac{40}{2} = 20$

So, 1 faraday of charge is required.

80. **Sol. (1)**

Pure ethanol molecules are hydrogen bonded.

On adding acetone, its molecules get in between the ethanol molecules and break some of the hydrogen bonds between them.

This weakens the intermolecular attractive interactions and the solution shows positive deviation from Raoult's law.

81. **Sol. (1)**

$$\Delta G = \Delta G^o + RT \ln Q$$

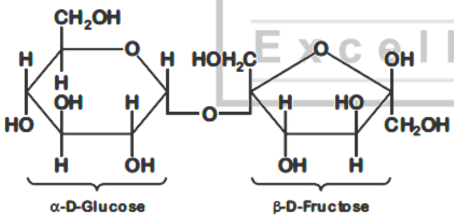
At equilibrium $\Delta G = 0$, $Q = K_{eq}$

So $\Delta_r G^0 = -RT \ln K_{eq}$

$\Delta_r G^0 = -8.314\ J\ mol^{-1}\ K^{-1} \times 300K \times \ln(2 \times 10^{13})$

82. **Sol. (3)**

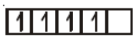
Sucrose $\xrightarrow{\text{Hydrolysis}}$ α-D-Glucose + β-D-Fructose



83. **Sol. (2)**

Electronic configuration of Cr – [Ar] $3d^5\ 4s^1$

Electronic configuration of Cr^{2+} – [Ar] $3d^4$

 Number of unpaired e^- = 4

Spin only magnetic moment = $\sqrt{n(n+2)}$

n = number of unpaired e^-

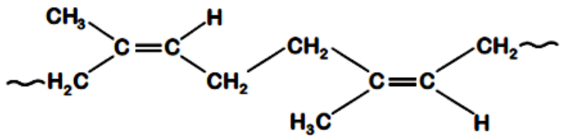
Spin only magnetic moment = $\sqrt{4(4+2)}$

$= \sqrt{24} BM$

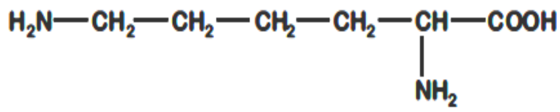
= 4.9 BM

84. **Sol. (1)**

Naturally occuring polymer, natural rubber is cis-1, 4– polyisoprene



85. **Sol. (4)**



(Structure of Lysine)

Lysine is abasic amino acid.

86. **Sol. (4)**

Sucrose is a disaccharide and a non-reducing sugar.

87. **Sol. (1)**

$$\underset{s}{Ni(OH)_2} \rightleftharpoons \underset{s}{Ni^{2+}} + \underset{2s}{2\overset{\ominus}{O}H}$$

$$\underset{0.1}{NaOH} \longrightarrow \underset{0.1}{Na^+} + \underset{0.1}{\overset{\ominus}{O}H}$$

Total $\left[\overset{\Theta}{O}H\right] = 2s + 0.1 \approx 0.1$

Ionic product =

$$[Ni^{2+}][\overline{O}H]^2 = 2 \times 10^{-15} = s(0.1)^2$$

$$s = 2 \times 10^{-13}$$

Solubility of $Ni(OH)_2$ = 2×10^{-13} M

88. **Sol. (1)**

For He_2 molecule

Electronic configuration is $\sigma 1s^2$, $\sigma 1s^2$

So bond order = $\frac{1}{2}[N_b - N_a]$

$= \frac{1}{2}[2-2] = 0$

89. **Sol. (2)**

A negative value of standard reduction potential for Cr^{3+} to Cr means that the redox couple is a stronger reducing agent

90. **Sol. (1)**

$${}^{175}_{71}Lu$$

No. of proton = 71 = No. of Electron

No. of Neutron = Mass no. – No. of protons

= 175 – 71

= 104