

FT - 14 (FR) (NEET - CBSE, GSEB) (11 - 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	4	3	1	2	2	2	1	2	2	3	1	4	2	1	2	2	2	1	1	4
Q	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Ans	3	3	1	1	3	1	1	2	2	3	2	3	2	1	2	1	2	2	3	1
Q	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Ans	1	2	1	2	4	2	3	4	3	1	3	1	4	2	2	3	4	1	4	3
Q	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
Ans	1	1	2	3	2	1	4	4	2	2	1	3	2	3	4	4	2	3	3	2
Q	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
Ans	1	2	3	4	2	4	3	4	4	4	2	1	3	1	3	4	2	4	2	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	4	3	2	2	4	4	4	4	2	2	4	3	3	2	1	1	1	2
Q	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140
Ans	1	1	3	2	1	3	1	3	2	3	1	2	2	1	1	4	4	2	2	2
Q	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160
Ans	1	2	1	2	1	2	1	3	1	3	4	3	4	4	3	1	3	2	2	3
Q	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180
Ans	1	4	2	1	2	1	2	2	1	3	1	2	1	4	4	1	1	4	3	1

PHYSICS:

1. Sol. (4)

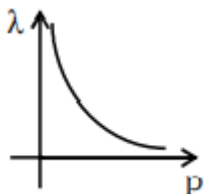
$$P = P_0 + \frac{4T}{R}$$

⇒ R increases and P Decreases

2. Sol. (3)

$$\lambda = \frac{h}{p}$$

Graph will be hyperbolic



3. Sol. (1)

$$I_g = \frac{F}{m}$$

$$= \frac{3}{60 \times 10^{-3}} = 50 \text{ N/kg}$$

4. Sol. (2)

$$d\vec{B} = \frac{(Id\vec{\ell} \times \vec{r})}{4\pi r^3}$$

As per Biot Savart law, the expression for magnetic field depends on current carrying element $Id\vec{\ell}$, which is a vector and statement – II is wrong.

5. Sol. (2)

$$S_{nth} = u + \frac{a}{2}(2n-1)$$

$$= 0 + \frac{a}{2}(2n-1)$$

$$S_{nth} \propto (2n-1)$$

$$\Rightarrow S_{1st}, S_{2nd}, S_{3rd}, S_{4th}$$

$$= [2(1)-1] : [2(2)-1] : [2(3)-1] : [2(4)-1]$$

$$= 1 : 3 : 5 : 7$$

6. Sol. (2)

In half wave rectification

$$f_{in} = f_{out}$$

$$\Rightarrow f_{out} = 60 \text{ Hz}$$

7. **Sol. (1)**

Initially speed is zero, then increases & after some time it becomes constant.

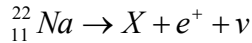
Acceleration (slope of v/t curve) of ball first decreases and after some time it becomes zero.

8. **Sol. (2)**

For conductors α – is (+)ve

For semiconductors & Insulators α – is (-)ve

9. **Sol. (2)**



This is β^+ – decay



10. **Sol. (3)**

First excited state $\Rightarrow n = 2$

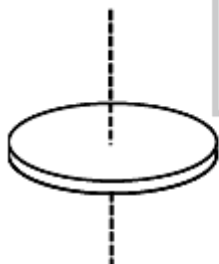
$$T_1 = -13.6 \frac{z^2}{n^2} = -\frac{13.6}{4} eV$$

Second excited state $\Rightarrow n = 3$

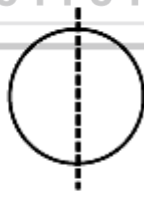
$$T_2 = -13.6 \frac{z^2}{n^2} = -\frac{13.6}{9} eV$$

$$T_1 : T_2 = \frac{1}{4} : \frac{1}{9} = 9 : 4$$

11. **Sol. (1)**



$$I_1 = \frac{mR^2}{2}$$



$$I_2 = \frac{mR^2}{4}$$

$$k = \sqrt{\frac{I}{m}}$$

$$\Rightarrow \frac{k_1}{k_2} = \sqrt{\frac{I_1}{I_2}} = \sqrt{\frac{mR^2/2}{mR^2/4}} = \sqrt{2} : 1$$

12. **Sol. (4)**

$$E = P \times t = 100 \times 10^3 \times 3600$$

$$= 36 \times 10^7 \text{ J}$$

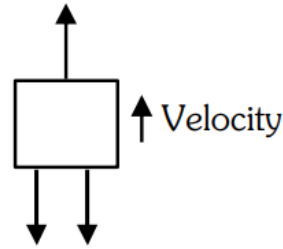
13. **Sol. (2)**

Constant velocity $\Rightarrow a = 0$

$$\Rightarrow T = W + f$$

$$= 20000 + 3000$$

$$= 23000 \text{ N}$$

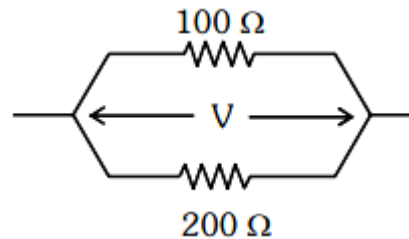


$$\Rightarrow \text{Power} = Tv$$

$$= 23000 \times 1.5$$

$$= 34500 \text{ watts}$$

14. **Sol. (2)**



As both resistors are in parallel combination so potential drop (V) across both are same.

$$P = \frac{V^2}{R} \Rightarrow P \propto \frac{1}{R}$$

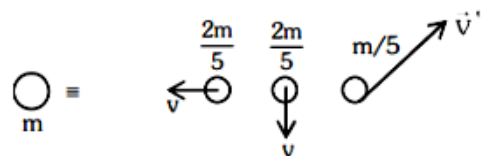
$$\frac{P_1}{P_2} = \frac{R_2}{R_1} = \frac{200}{100} = \frac{2}{1}$$

$$= 2 : 1$$

15. **Sol. (2)**

Peak voltage is $\sqrt{2}$ times rms voltages in ac.

16. **Sol. (2)**



By conservation of momentum :

$$m(0) = \frac{2m}{5}(-v\hat{i}) + \frac{2m}{5}(-v\hat{j}) + \frac{m}{5}\vec{v}'$$

$$\Rightarrow \vec{v}' = 2v\hat{i} + 2v\hat{j}$$

$$\Rightarrow \vec{v}' = \sqrt{(2v)^2 + (2v)^2}$$

$$\Rightarrow 2\sqrt{2}v$$

17. **Sol. (2)**

$$v \propto \sqrt{\text{Tension}}$$

$$\frac{v_i}{v_f} = \sqrt{\frac{T_i}{T_f}}$$

$$\frac{v_i}{v_f} = \sqrt{\frac{T_i}{2T}}$$

$$\frac{v_i}{v_f} = \sqrt{\frac{1}{2}} = \frac{1}{\sqrt{2}}$$

18. Sol. (1)

- 1 : Isochoric
2 : Adiabatic
3 : Isothermal
4 : Isobaric

19. Sol. (1)

$$\omega = \omega_0 + \alpha t$$

$$\alpha = \frac{\omega - \omega_0}{t}$$

$$= \frac{(3120 - 1200)}{16s} \text{ rpm}$$

$$= \frac{1920}{16s} \times \frac{2\pi}{60} \text{ rad/s}^2$$

$$= 4\pi \text{ rad/s}^2$$

20. Sol. (4)

Plane angle and solid angle are dimensionless but have units.

21. Sol. (3)

In (a) & (c) circuits, both the junctions are in same biasing conditions so offers equal resistances. Since both are in series, therefore equal potential will drop across the junction.

22. Sol. (3)

$$y = (n\lambda) \left(\frac{D}{d} \right)$$

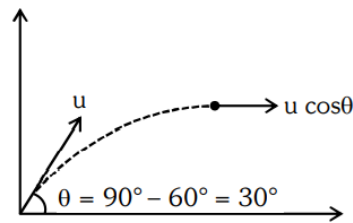
$$n_1\lambda_1 = n_2\lambda_2$$

$$(8) (600\text{nm}) = n_2 (400)$$

$$n_2 = 12$$

23. Sol. (1)

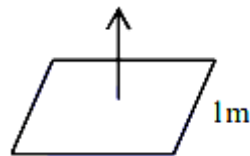
At highest point only horizontal component of velocity remains $\Rightarrow u_x = u \cos\theta$



$$U_x = u \cos\theta = 10 \cos 30^\circ = 5\sqrt{3} \text{ ms}^{-1}$$

24. Sol. (1)

$$B = 0.5 \text{ T}$$



Angle between \vec{B} & \vec{A} is zero

$$\phi = B \cdot A \cdot \cos 0$$

$$= 0.5 \times (1) \times 1$$

$$= 0.5 \text{ Wb}$$

25. Sol. (3)

$$\text{Radius of wire} = \frac{10^{-2}}{\sqrt{\pi}}$$

$$\text{Cross sectional area } A = \pi r^2 = 10^{-4} \text{ m}^2$$

$$j = \frac{i}{A} = \left(\frac{V}{R} \right) \cdot \frac{1}{A} = \frac{E\ell}{RA} \quad R = \frac{\rho\ell}{A}$$

$$j = \frac{10 \times 10}{10 \times 10^{-4}} = 10^5 \text{ A/m}^2$$

$$J = \sigma E \Rightarrow \frac{E}{\rho} = \frac{E\ell}{RA} = \frac{10 \times 10 \times \pi}{10 \times 10^{-4} \times \pi}$$

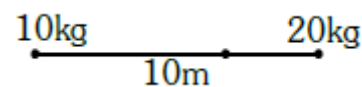
$$\Rightarrow 10^5 \text{ A/m}^2$$

26. Sol. (1)

$$B = \mu_0 n i = \mu_0 \frac{N}{\ell} i$$

$$B = 4\pi \times 10^{-7} \times \frac{100}{10^{-3}} \times 1 = 12.56 \times 10^{-2} \text{ T}$$

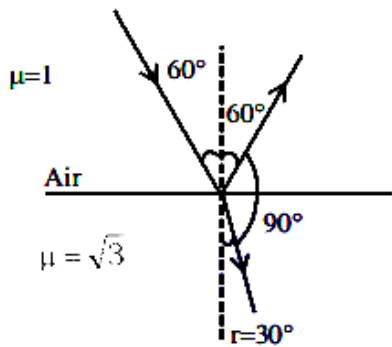
27. Sol. (1)



$$\leftarrow X_{CM} \rightarrow$$

$$X_{CM} = \frac{20 \times 10}{20 + 10} = \frac{20}{3} \text{ m}$$

28. Sol. (2)



Method (i)

By Snell's law

$$1 \sin 60^\circ = \sqrt{3} \sin r$$

$$\sin r = \frac{1}{2}$$

$$r = 30^\circ$$

Angle between refracted and reflected ray is 90°

Method (ii)

Because angle of incidence is Brewster's angle so that angle between reflected and refracted ray is 90°

$$\tan i_p = \mu = \sqrt{3}$$

$$i_p = 60^\circ = i$$

29. **Sol. (2)**

[MLT⁻²A⁻²] = Magnetic permeability

30. **Sol. (3)**

Velocity is slope of x - t graph

$$V = \frac{dx}{dt} = \tan \theta$$

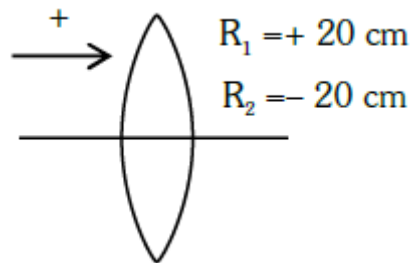
$$\frac{V_1}{V_2} = \frac{\tan \theta_1}{\tan \theta_2} = \frac{\tan 30^\circ}{\tan 45^\circ} = \frac{1}{\sqrt{3}}$$

31. **Sol. (2)**

$$R_1 = R_2 = 20 \text{ cm} = 0.2 \text{ m}$$

$$\mu = \frac{3}{2}$$

$$P = \frac{1}{f} = (\mu - 1) \left(\frac{1}{R_1} - \frac{1}{R_2} \right)$$



$$P = \left(\frac{3}{2} - 1 \right) \left(\frac{1}{0.2} + \frac{1}{0.2} \right)$$

$$P = \frac{1}{2} \left(\frac{2}{0.2} \right) = \frac{10}{2} = +5D$$

32. **Sol. (3)**

- (a) Radio wave (ii) $\approx 10^2 \text{ m}$ (ii)
 - (b) Microwave \approx (iii) 10^{-2} m (iii)
 - (c) Infrared radiations \approx (iv) 10^{-4} m (iv)
 - (d) X - ray (i) $\approx \text{Å} = 10^{-10} \text{ m}$ (i)
- (a) - (ii), (b) - (iii), (c) - (iv), (d) - (i)

33. **Sol. (2)**

Nuclear Radius:

$$R = R_0(A)^{1/3}$$

$$\frac{R(125)}{R(64)} = \frac{R_0(125)^{1/3}}{R_0(64)^{1/3}} = \frac{5}{4}$$

34. **Sol. (1)**

$$\mu = \frac{C}{u} \Rightarrow u \propto \frac{1}{\mu}$$

Critical angle

$$\sin i_c = \frac{\mu_R}{\mu_D} = \frac{u_D}{u_R} = \frac{1.5}{2} = \frac{3}{4}$$

$$i_c = \sin^{-1} \left(\frac{3}{4} \right)$$

$$\sin i_c = \frac{\mu_R}{\mu_D} = \frac{u_D}{u_R}$$

$$i_c = \sin^{-1} \left(\frac{3}{4} \right)$$

35. **Sol. (2)**

$$i_{\max} = \frac{E_{\max}}{R} = \frac{NBA\omega}{R}$$

$$i_{\max} = \frac{1000 \times 2 \times 10^{-5} \times \pi(10^2) \times 2}{12.56}$$

$$i_{\max} = 1A$$

36. **Sol. (1)**

Gravitational constant = $[M^{-1}L^3T^{-2}]$

Gravitational potential energy = $[M^2T^{-2}]$

Gravitational potential = $[L^2T^{-2}]$

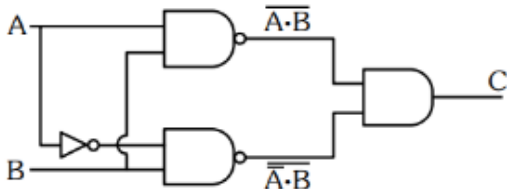
Gravitational intensity = $[LT^{-2}]$

37. Sol. (2)

In stretching of a spring shape charges therefore shear modulus is used.

$$Y_{\text{copper}} < Y_{\text{steel}}$$

38. Sol. (2)



$$C = \overline{A.B \cdot \overline{A.B}}$$

Using De-Morgan Theorem

$$C = \overline{A.B + \overline{A.B}}$$

$$C = \overline{B(A + \overline{A})} = \overline{B}$$

Therefore

A	B	C
0	0	1
0	1	0
1	0	1
1	1	0

39. Sol. (3)

$$V = (\text{no. of moles}) (22.4 \text{ litre})$$

$$= \frac{\text{mass}}{\text{molar mass}} (22.4 \times 10^{-3} m^3)$$

$$= \frac{4.5 \times 10^3}{18} \times 22.4 \times 10^{-3} m^3$$

$$= 5.6 m^3$$

40. Sol. (1)

Resistance of P & Q should be approx. equal as it decreases error in experiment.

41. Sol. (1)

$$\omega = 100$$

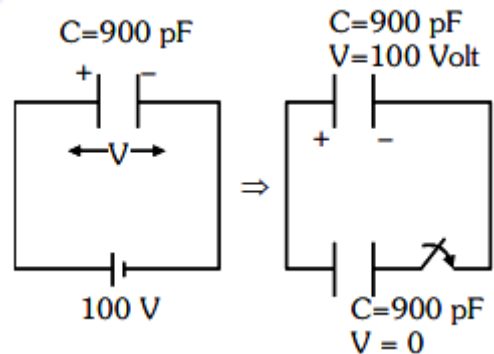
$$v = \frac{\omega}{2\pi} = \frac{100}{2\pi} = \frac{50}{\pi} \text{ Hz}$$

Resonance frequency

$$v_0 = \frac{1}{2\pi\sqrt{LC}} = \frac{1}{2\pi} = \sqrt{\frac{1}{10 \times 10 \times 10^{-6}}}$$

$$= \frac{50}{\pi} \text{ Hz}$$

42. Sol. (2)



Common potential

$$V_c = \frac{C_1 V_1 + C_2 V_2}{C_1 + C_2}$$

$$= \frac{C \times 100 + C \times 0}{C + C}$$

$$= 50 \text{ Volt}$$

Electrostatic energy stored

$$= 2 \times \frac{1}{2} CV^2 = CV^2$$

$$= 900 \times 10^{-12} \times 50 \times 50$$

$$= 225 \times 10^{-8} \text{ J}$$

$$= 2.25 \times 10^{-6} \text{ J}$$

43. Sol. (1)

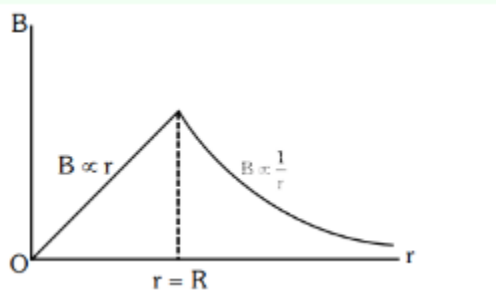
It is electric dipole at large distance electric field intensity

$$E = \frac{KP}{R^3} \sqrt{1 + 3 \cos^2 \theta}$$

$$\therefore E \propto \frac{1}{R^3}$$

44. Sol. (2)

Correct answer is (2) a linearly increasing function of distance r upto the boundary of the wire and then decreasing one with 1/r dependence for the outside region.



45. Sol. (4)

$$(n)T_\ell = (n+1)T_s$$

$$(n)2\pi\sqrt{\frac{1.21}{g}} = (n+1)2\pi\sqrt{\frac{1}{g}}$$

$$(n)(1.1) = (n+1)$$

$$0.1(n) = 1$$

$$n = 10$$

No. of oscillation of smaller one

$$= n + 1$$

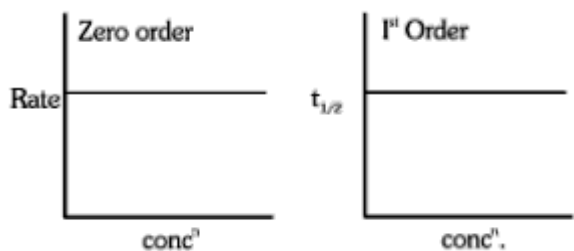
$$= 10 + 1$$

$$= 11$$



CHEMISTRY:

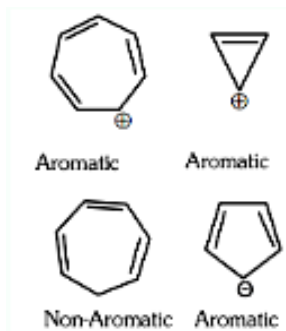
46. Sol. (2)



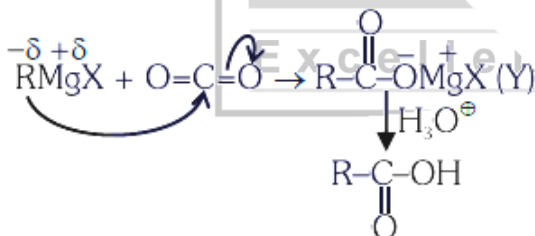
(I) curve is suitable for zero order if $y = \text{rate}$ and $x = \text{concentration}$ because in case of zero order reaction rate is constant and does not depend on conc^n .

(II) curve is suitable for first order if $y = t_{1/2}$ and $x = \text{conc}^n$ because in case of first order $t_{1/2}$ does not depend on conc^n .

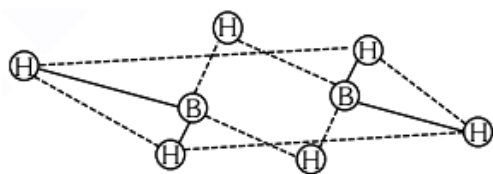
47. Sol. (3)



48. Sol. (4)

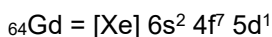


49. Sol. (3)



B has sp^3 Hybridisation
Non-planar

50. Sol. (1)



After losing 5d electron 4f has maximum exchange energy so Gd has low value of Third ionisation energy.

51. sol. (3)

Dalton's law of partial pressure :

Partial pressure of gas = mole fraction of gas in gaseous mixture \times Total pressure of gaseous mixture.

$$p_1 = X_1 p$$

$$p_2 = X_2 p$$

$$p_3 = X_3 p$$

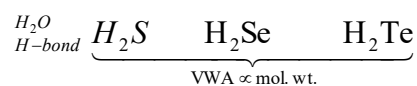
Total pressure,

$$p = p_1 + p_2 + p_3$$

Therefore, statement (3) incorrect

52. Sol. (1)

Hydrides of group 16th



B.P. $\rightarrow \text{H}_2\text{S} < \text{S}_2\text{Se} < \text{H}_2\text{Te} < \text{H}_2\text{O}$

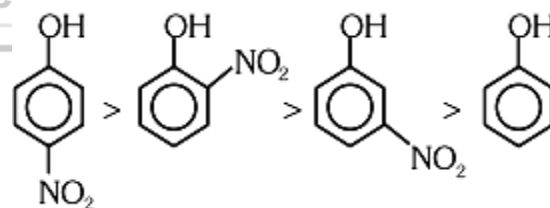
53. Sol. (4)

IUPAC nomenclature

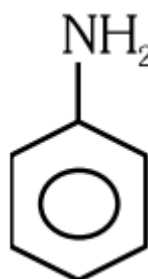
119 \rightarrow Ununennium \rightarrow Uue

54. Sol. (2)

Acidic strength of phenolic group increases due to electron withdrawing groups. Order of acidic strength.



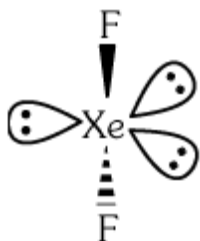
55. Sol. (2)



Kjeldahl's method is not applicable to the compounds containing nitrogen having nitro and azo group and nitrogen present in the ring (pyridine), as nitrogen of these compounds does

not change to ammonium sulphate under these conditions.

56. Sol. (3)



XeF₂ has maximum 3 lone – pair – lone – pair repulsions.

57. Sol. (4)



58. Sol. (1)

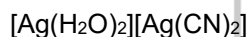
In P-V graph area under the curve represent magnitude of work.

As it is maximum in graph-1

59. Sol. (4)

60. Sol. (3)

IUPAC



Coordination number = 2,

Oxidation state = Ag⁺¹

Diaquasilver (I) dicyanidoargentate (I)

61. Sol. (1)

KO₂

K⁺O₂⁻ (O₂⁻ – superoxide ion)

62. Sol. (1)



no. of moles of CaCO₃ (pure) = $\frac{1}{2}$ × mole of HCl

[Mole = molarity × volume (in ltr.)]

$$= \frac{1}{2} \times 0.5 \times \frac{50}{1000} = 0.0125$$

Weight of CaCO₃(pure) = mole × mol. wt

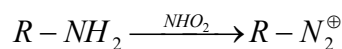
$$= 0.0125 \times 100 = 1.25 \text{ g}$$

$$\% \text{ purity} = \frac{\text{wt. of pure substance}}{\text{wt. of impure sample}} \times 100$$

$$95 = \frac{1.25}{\text{wt. of impure sample}} \times 100$$

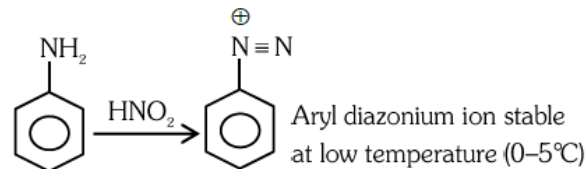
$$\text{wt. of impure sample} = \frac{1.25 \times 100}{95} = 1.32 \text{ g}$$

63. Sol. (2)



Alkyl diazonium ion

(Unstable)



Aryl diazonium ion stable at low temperature (0–5°C)

64. Sol. (3)

It decomposes easily in the dry state

65. Sol. (2)

Enantiomers are non-superimposable mirror images of each other.

66. Sol. (1)

A → Products

Initial conc. A₀ = 0.1 M

Conc. After 5 min A_t = 0.001 M

t = 5 min.

For first order reaction

$$K = \frac{2.303}{t} \log \left(\frac{A_0}{A_t} \right)$$

$$= \frac{2.303}{5} \log \left(\frac{0.1}{0.001} \right)$$

$$K = 0.9212 \text{ min}^{-1}$$

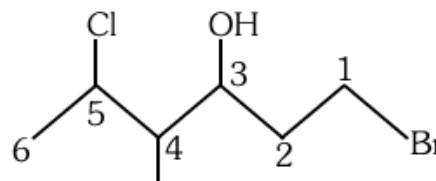
67. Sol. (4)

Electron deficient hydride → Less than 8e⁻ (B₂H₆)

Electron precise hydride → having 8e⁻ without I.p. (GeH₄)

Electron rich hydride → having 8e⁻ with I.p. (HF)

68. Sol. (4)



1 – Bromo – 5-chloro-4-methylhexan-3-ol

69. Sol. (2)

Both (A) and (R) are correct and (R) is not the correct explanation of (A). because conversion of Ce^{4+} to Ce^{3+} is slow reaction.

70. **Sol. (2)**

Which is incorrect statement regarding enzymes

- (1) Like chemical catalysts enzymes reduce the activation energy of bio process \Rightarrow This is correct statement.
- (2) Enzymes are polysaccharides \Rightarrow This is incorrect statement because enzymes are protein in nature
- (3) Enzymes are very specific for a particular reaction and substrate \Rightarrow This is correct statement.
- (4) Enzymes are biocatalyst \Rightarrow This is correct statement.

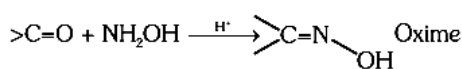
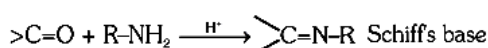
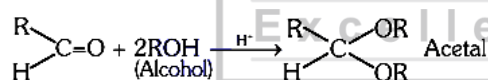
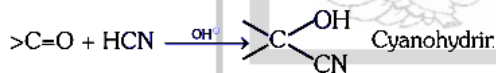
71. **Sol. (1)**

$$m = \frac{\text{Moles of solute}}{\text{Weight of solvent (g)}} \times 1000$$

$$1 = \frac{0.5}{\text{Weight of solvent (g)}} \times 1000$$

$$\text{Weight of solvent (g)} = 500 \text{ g}$$

72. **Sol. (3)**



73. **Sol. (2)**

In diamond each carbon is bonded with four other carbon atoms. So hybridisation of carbon atom is sp^3 .

In graphite each carbon is bonded with three other carbon atoms. So hybridisation of carbon atom is sp^2 .

74. **Sol. (3)**

O_2^+ ion is having 15 electrons, so it contain one unpaired electron. Hence it is paramagnetic in nature.

75. **Sol. (4)**

Interhalogen compound group 17th

ICl is more reactive due to polar bonds.

From NCERT – X – X' bond is weaker than X – X bond except F_2 .

76. **Sol. (4)**

Weak acid (CH_3COOH) and salt of acid – strong base (CH_3COONa) form an acidic buffer.

Sodium acetate (CH_3COONa) = 0.10 M;

Acetic acid (CH_3COOH) = 0.01 M;

pH of acidic buffer solution is given by

$$pH = pK_a + \log \frac{[Salt]}{[Acid]}$$

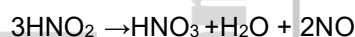
$$= 4.57 + \log \left(\frac{0.1}{0.01} \right)$$

$$= 5.57$$

77. **Sol. (2)**

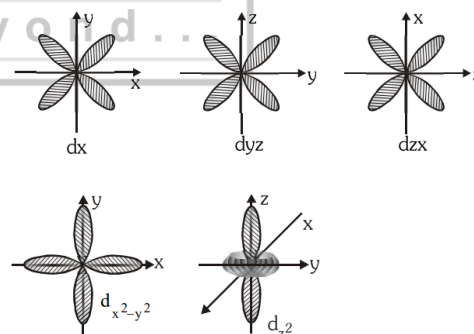
(I) In case of nitrogen all oxidation states from +1 to +4 tend to disproportionate in acid solution.

For Example



(II) N-N bond is weaker than the single P-P bond because of high interelectronic repulsion of the non-bonding electrons, owing to the **small** bond length in N-N.

78. **Sol. (3)**



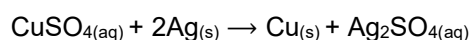
79. **Sol. (3)**

SRP :

$$E_{Zn^{2+}/Zn}^\circ < E_{Fe^{2+}/Fe}^\circ < E_{Cu^{2+}/Cu}^\circ < E_{Ag^+/Ag}^\circ$$

Reactivity order : $Zn > Fe > Cu > Ag$

In case of displacement reaction, more reactive metals (lower SRP) can displace less reactive metals (higher SRP) from their salt solution.

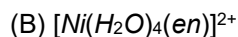
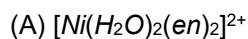


Option (3)

Reaction is not possible

As Ag is less reactive metal compare to Cu.

80. Sol. (2)



en is SFL (strong field ligand)

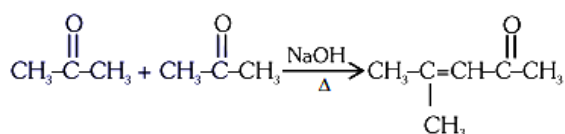
As the number of en (strong ligand) increase splitting also increases.

So, Δ_0 increases.

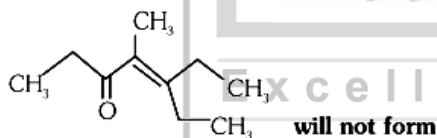
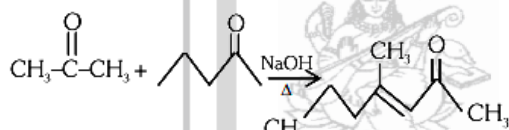
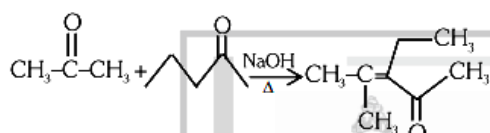
i.e. maximum energy will be absorbed in case of option C.

So the order is $C > A > B$

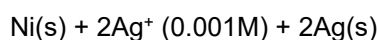
81. Sol. (1)



Cross Aldol



82. Sol. (2)



$$E_{cell} = E_{cell}^{\circ} - \frac{0.059}{n} \log \frac{[Ni^{+2}]}{[Ag^+]^2}$$

$$E_{cell} = 1.05 - \frac{0.059}{2} \log \frac{10^{-3}}{(10^{-3})^2}$$

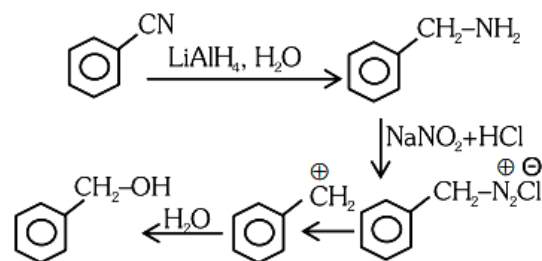
$$= 1.05 - \frac{0.059}{2} \log 10^3$$

$$= 1.05 - \frac{0.059}{2} \times 3$$

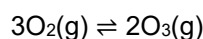
$$0.9615 V$$

(Calculated answer is not given in option)

83. Sol. (3)



84. Sol. (4)



$$K_c = \frac{[O_3]^2}{[O_2]^3}$$

$$3 \times 10^{-59} = \frac{[O_2]^2}{[4 \times 10^{-2}]^3}$$

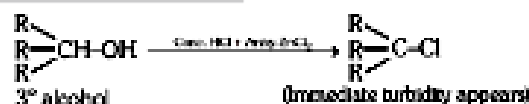
$$[O_3]^2 = 3 \times 10^{-59} \times 64 \times 10^{-6}$$

$$= 19.2 \times 10^{-64}$$

$$= 4.38 \times 10^{-32} M$$

85. Sol. (2)

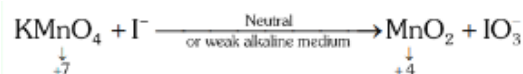
1°, 2°, 3° Alcohol are distinguished by Lucas test on the basis of the time taken for turbidity to appear



Reactivity of alcohol towards Lucas reagent

$\Rightarrow 3^\circ > 2^\circ > 1^\circ$ Alcohol

86. Sol. (4)



Change +7 to +4

87. Sol. (3)

88. Sol. (4)

Acc. to Bohr's atomic model

$$r \propto \frac{n^2}{z} \quad 3^{\text{rd}} \text{ orbit of } Li^{+2} \quad n_1 = 3$$

$$\Rightarrow \quad 2^{\text{nd}} \text{ orbit of } He^+ \quad n_2 = 2$$

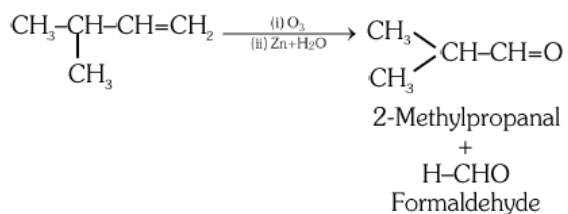
$$Z_2 = 2$$

$$\frac{(r_3)_{Li^{+2}}}{(r_2)_{He^+}} = \frac{n_1^2}{n_2^2} \times \frac{Z_2}{Z_1}$$

$$\frac{(r_3)_{Li^{+2}}}{105.8 pm} = \frac{3 \times 3}{2 \times 2} \times \frac{3}{3}$$

$$(r_3)_{Li^{+2}} = 158.7 pm$$

89. Sol. (4)



90. Sol. (4)

Boiling point of comparable molecular mass molecules

R-OH	>	Aldehyde - Ketone	>	Alkane
H-bonding (strong molecular association)		Dipole-dipole interaction (weak molecular association)		Non-polar

