Sri Chaitanya IIT Academy.,India.

A.P T.S KARNATAKA TAMILNADU MAHARASTRA DELHI RANCHI

A right Choice for the Real Aspirant

ICON Central Office - Madhapur - Hyderabad

SEC: Jr.Super60_NUCLEUS BT | **JEE-MAIN** | **Date:** 20-09-2025
Time: 09.00Am to 12.00Pm | **WTM-23** | **Max. Marks:** 300

KEY SHEET

MATHEMATICS

1	**1**	2	**3**	3	**2**	4	**2**	5	**3**
6	**3**	7	**1**	8	**1**	9	**2**	10	**3**
11	**1**	12	**2**	13	**2**	14	**4**	15	**1**
16	**3**	17	**2**	18	**2**	19	**2**	20	**3**
21	**1**	22	**6**	23	**2**	24	**8**	25	**119**

PHYSICS

26	**3**	27	**1**	28	**1**	29	**1**	30	**4**
31	**3**	32	**3**	33	**2**	34	**1**	35	**2**
36	**4**	37	**4**	38	**3**	39	**1**	40	**1**
41	**1**	42	**1**	43	**3**	44	**1**	45	**2**
46	**19**	47	**6**	48	**6**	49	**25**	50	**2**

CHEMISTRY

51	**3**	52	**1**	53	**4**	54	**4**	55	**2**
56	**3**	57	**2**	58	**2**	59	**4**	60	**2**
61	**2**	62	**1**	63	**1**	64	**2**	65	**2**
66	**2**	67	**2**	68	**4**	69	**1**	70	**2**
71	**11**	72	**15**	73	**8**	74	**6**	75	**9**

SOLUTION
MATHEMATICS

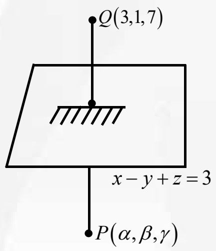
1. Locus of 'Q' is the line of intersection of the plane $x+2y+3z=4$ and $1(x-1)+1(y-1)+1(z-1)=0 \Rightarrow$ the line is $\frac{x}{1}=\frac{y-5}{-2}=\frac{z+2}{1}$

2. Let image of $Q(3,1,7)$ $w.r.t.$ $x-y+z=3$ be $P(\alpha,\beta,\gamma)$.

$\therefore$ $$\frac{\alpha-3}{1}=\frac{\beta-1}{-1}=\frac{\gamma-7}{1}=\frac{-2(3-1+7-3)}{1^2+(-1)^2+(1)^2}$$

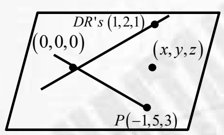
$\Rightarrow$ $\alpha-3=1-\beta=\gamma-7=-4$

$\therefore$ $\alpha=-1,\beta=5,\gamma=3$



Hence, the image of $Q(3,1,7)$ is $P(-1,5,3)$,

To find equation of plane passing through $P(-1,5,3)$ and containing $\frac{x}{1}=\frac{y}{2}=\frac{z}{1}$



$$\Rightarrow \begin{vmatrix} x-0 & y-0 & z-0 \\ 1-0 & 2-0 & 1-0 \\ -1-0 & 5-0 & 3-0 \end{vmatrix}=0$$

$\Rightarrow$ $x(6-5)-y(3+1)+z(5+2)=0$

$\therefore$ $x-4y+7z=0$

3. $D=\frac{|\bar{a}.N-d|}{|N|}$

$D_1=\left|\frac{20-12p}{13}\right|$ at $(1,1,p)$

$D_2=\frac{8}{13}at(-3,0,1)$

$\therefore$ $D_1=D_2 \Rightarrow P=1$ or $\frac{7}{3}$

4. $\left[\bar{r}.\left(\hat{i}+\hat{j}+\hat{k}\right)-1\right]+\lambda\left[\bar{r}\left(2\hat{i}+3\hat{j}-\hat{k}\right)+4\right]=0$

$dr's$ are $(2\lambda+1),(3\lambda+1),(1-\lambda)$

$dr's\ of\ x-axis$ are $1,0,\upsilon$

$1.(2\lambda+1)=0 \Rightarrow \lambda=-1/2$

$r.\left(\hat{k}-3\hat{k}=0\right)+6=0$

$\Rightarrow \qquad y-3z+6=0$.

5. Use $\overline{N}=(a,b,c),(\overline{a})=(x_1,y_1,z_1)$ and the plane $ax+by+cx-\lambda=0$.

6. $x+\lambda z=0$ sub $(123) \Rightarrow \lambda=-\dfrac{1}{3} \therefore\ 3x-z=0$

7. Plane is $3x-4y+3z-19=0$

8. $2a+b+t(b-c)=a+x(b+c)+y(b+c)+y(a+2b-c)$

$\therefore$ On comparing the corresponding coefficients.

$2=1+y \Rightarrow y=1$

$1+t=x+2y \Rightarrow t-x=1$

$-t=x-y \Rightarrow t+x=y=1$.

On solving, we get $t=1, x=0$.

$\therefore$ The point of intersection $=2a+2b-c$.

9. Let A be the acute angle between the normal of the plane and the line segment joining the points

$\therefore \quad \cos A=\dfrac{3}{\sqrt{6}\sqrt{41}} \Rightarrow$ length of projection $=\sqrt{6}\sin A$

$=\sqrt{6}\sqrt{-\dfrac{9}{246}}$

$=\sqrt{6.\dfrac{237}{246}}=\sqrt{\dfrac{237}{41}}$

10. The plane $a(x-3)+b(y-1)+c(z-1)=0$

$$\therefore \left.\begin{array}{l} a-2b+2c=0 \\ 2a+3b-c=0 \end{array}\right\} \Rightarrow \begin{array}{lcl} a & = & -4 \\ b & = & +5 \\ c & = & 7 \end{array}$$

$\therefore \quad -4(\alpha-3)+5(-3-1)+7(5-1)=0\ \ \alpha=5$

11. Solution any point on L_1 is $(2\lambda+1,-\lambda,\lambda-3)$ and on $L_2\ (\mu+4,\mu-3,2\mu-3)$

For point of intersection of L_1, L_2

$\lambda=2, \mu=1$

$\therefore$ point of intersection of L_1, L_2 is

$(5,-2,-1)$

$ax+by+cz+d=0$ is perpendicular to p_1, p_2

$\Rightarrow \qquad 7a+b+2c=0$

$3a+5b-6c=0$

$\dfrac{a}{-16}=\dfrac{6}{48}=\dfrac{c}{32} \Rightarrow \dfrac{a}{1}=\dfrac{b}{-3}=\dfrac{c}{-2}$

Plane is $x-3y-2x=\dfrac{d}{\lambda a}$

Ct is passing through $(5,-2,-1)$

$\Rightarrow\ 5+6+2=\dfrac{d}{\lambda}\Rightarrow\dfrac{d}{\lambda}=+13$

Plane is $x-3y-2z=13$

$A=-1, b=-3, c=-2, d=+13$

12. Equation of a plane passing through the line of intersection of the given plane is

$2x-y+3z+5+\lambda(5x-4y-2z+1)=0$

Or $(2+5\lambda)x-(1+4\lambda)y+(3-2\lambda)z+5+\lambda=0$

This will be perpendicular to the plane $2x-y+3z+5=0$ if

$2(2+5\lambda)+(1+4\lambda)+3(3-2\lambda)=0$

$\Rightarrow\quad \lambda=-\dfrac{7}{4}$ and the required equation of the plane is

$4(2x-y+3z+5)-7(5x-4y-2z+1)=0$

$\Rightarrow\quad 27x-24y-26z-13=0$

13. $\left(\dfrac{x-2y-2z+1}{\sqrt{1+4+4}}\right)=-\left(\dfrac{2x-3y-6z+1}{\sqrt{4+9+36}}\right)$

$\because\quad a_1a_2+b_1b_2+c_1c_2>0$

$\Rightarrow\quad 13x-23y-32z+10=0$

14. The required angle is the angle between $\overline{OA}\times\overline{OB}$ and $\overline{AB}\times\overline{AC}$

15. Both the statements are correct.

16. Given line passes through the point $A(1,2,4)$ and this point also lies in the plane. To find the reflection of the line, we need one more point of the line. Clearly $P(0,5,5)$ also lies in the line. Let $Q(\alpha,\beta,\gamma)$ be the reflection of P in the plane $x+y+z=7$.

Then $\dfrac{\alpha}{2}=\dfrac{\beta+5}{2}=\dfrac{\gamma+5}{2}-7\Rightarrow\quad \alpha+\beta+\gamma=4$

Also $PQ\perp$ to the plane, i.e., parallel to the normal of the plane.

17. Line $\dfrac{x-2}{3}=\dfrac{y-1}{5}=\dfrac{z+2}{5}$ …………… (1)

Lies in the plane $x+3y-\alpha x+\beta=0$ ……….. (2)

D.R.'s of line are $3,-5,2$.

$\therefore\quad 3\times1-5\times3-\alpha\times2=0\Rightarrow\alpha=-6$

And point $(2,1,-2)$ lies in the plane (2).

$\therefore\quad 2+3+2\alpha+\beta=0\Rightarrow\beta=7$

$\therefore\quad$ Roots of the equation are $\alpha+\beta=1, \alpha\beta=-42$

$\therefore\quad$ Required quadratic equation is $x^2-x-42=0$

18. Any plane through $(1,0,0),(0,1,0)$ can be taken as $\dfrac{x}{1}+\dfrac{y}{1}+\dfrac{z}{c}=1$

D.R.'s of normal to this plane are 1, 1, 1/c.

This plane is inclined an angle $\frac{\pi}{4}$ with the plane $x+y=3$

$\therefore \quad \cos\left(\frac{\pi}{4}\right)=\frac{1+1+0.\frac{1}{c}}{\sqrt{1^2+1^2+1/c^2}\sqrt{1+1}}$

$\Rightarrow \quad \frac{4c^2}{\left(2c^2+1\right)^2}=\frac{1}{2}$

$\Rightarrow \quad c^2=\frac{1}{2} i.e., c=\pm\frac{1}{\sqrt{2}}$

$\therefore$ D.R.'s of normal of the required plane are $\left(1,1,\sqrt{2}\right)$ or $\left(1,1,-\sqrt{2}\right)$

19. We have $\cos^2\alpha+\cos^2\beta+\cos^2\gamma=1$

$\alpha=60^0, \beta=45^0; \frac{1}{4}+\frac{1}{2}+\cos^2\gamma=1$

$\cos^2\gamma=\frac{1}{4}; \cos\gamma=\frac{1}{2}$

The equation of the plane through $\left(\sqrt{2},-1,1\right)$ is $\cos\alpha\left(x-\sqrt{2}\right)+\cos\beta\left(y+1\right)+\cos\gamma\left(z-1\right)=0$

$\Rightarrow \quad \frac{1}{2}\left(a-\sqrt{2}\right)+\frac{1}{\sqrt{2}}\left(b+1\right)+\frac{1}{2}\left(c-1\right)=0$

$\Rightarrow \quad \left(a-\sqrt{2}\right)+\sqrt{2}\left(b+1\right)+\left(c-1\right)=0$

$a+\sqrt{2}b+c=1$

20. Let $\left(a,b,c\right)$ be the dr's of normal of plane containing

The lines $\frac{x}{2}=\frac{y}{3}=\frac{z}{5}, \frac{x}{3}=\frac{y}{7}=\frac{z}{8}$

$\Rightarrow \quad 2a+3b+5c=0; 3a+7b+8c=0$

$\Rightarrow \quad \left(a,b,c\right)=\left(11,1-5\right)$

Let $\left(a_1,b_2,c_1\right)$ be the dr's of normal of plane p

$\therefore \quad 9a_1-b_1-5c_1=0; 11a_1+b_1-5c_1=0$

$\therefore \quad \left(a_1,b_1,c_1\right)=\left(1,-1,2\right)$

$\therefore$ equation of plane $x-y+2z=21$

$\therefore \quad d=\frac{8}{\sqrt{6}} \Rightarrow d^2=\frac{64}{6}=\frac{32}{3}$

21. Equation of line passing through $\left(1,-2,3\right)$ and parallel to the given line is

$\frac{x-1}{2}=\frac{y+2}{3}=\frac{z-3}{-6}$ any point

on the line is $\left(2\lambda+1, 3\lambda-2, -6\lambda+3\right)$. It lies on the plane

$\Rightarrow \quad \lambda = \frac{1}{7} \quad \therefore \quad$ the point is $\left(\frac{9}{7}, \frac{-11}{7}, \frac{15}{7}\right)$

$\therefore \quad$ distance $= f\sqrt{\left(1-\frac{9}{7}\right)^2 + \left(-2+\frac{11}{7}\right)^2 + \left(3-\frac{15}{7}\right)^2} = 1$

22. Equation of plane is $\begin{vmatrix} x-1 & y-2 & z-2 \\ 2 & 3 & 4 \\ 3 & 4 & 5 \end{vmatrix} = 0 \Rightarrow x - 2y + z = 0$

$\therefore \quad$ Distance between parallel plane is $\frac{|d|}{\sqrt{6}} = \sqrt{6} \Rightarrow |d| = 6$

23. Vectors $\left(\left(3\hat{i} - 2\hat{j} + \hat{k}\right) \times \left(4\hat{i} - 3\hat{j} + 4\hat{k}\right)\right)$ is perpendicular to $2\hat{i} - \hat{j} + m\hat{k}$.

$$\begin{vmatrix} 3 & -2 & 1 \\ 4 & -3 & 4 \\ 2 & -1 & m \end{vmatrix} = 0$$

24. Use $\sin\phi$ formula between line & plane

25. Plane $a(x+1) + b(y-0) + c(z+2) = 0$

But $2a + b - c = 0; a - b - c = 0$

$\therefore \quad a = 2, b = -1, c = 3 \;\therefore\; 2x - y, +3z + 8 = 0$

PHYSICS

26. Work done to form a bubble of radius R

$W_1 = 8\pi R^2 T_1$

Work done to form a bubble of radius 2R

$W_2 = 8\pi (2R)^2 T_2 = 32\pi R^2 T_2$

If surface tension of soap solution is same, then

$W_2 = 4W_1$

But in the problem the temperature of solution is increased. So its surface tension decreases.

$\therefore \quad W_2 < 4W_1$

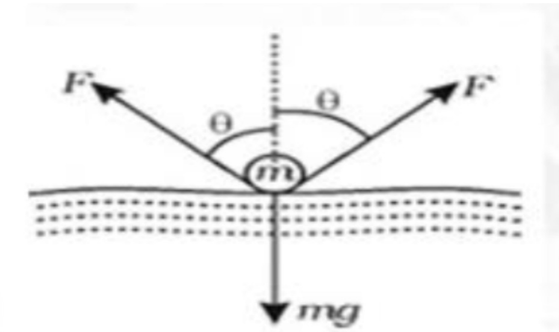
27. Conceptual
28. Theory based
29. Theory based
30. Let the mass of the needle be m. As the liquid surface is distorted, the surface tension forces acting on both side of the needle make an angle. θ say, with vertical. Since, the forces acting on the needle are F, F and mg, resolving the forces vertically for its equilibrium, we have

$\Sigma F = F\cos\theta + F\cos\theta - mg = 0$

This gives $m = \frac{2F\cos\theta}{g}$

Where $F = \sigma l$. Then $\pi r^2 l = \dfrac{2\sigma l \cos\theta}{g}$

For r to be maximum, $\cos\theta = 1$, hence $r_{\max} = \sqrt{\dfrac{2\sigma}{\pi \rho g}}$



31. Force due to surface tension balancing the force due to pressure, hence

$1000 \times 10 \times \dfrac{40}{100} = \dfrac{2\sigma}{R} = \dfrac{2 \times 7 \times 10^{-2}}{R} \Rightarrow 2R = 0.07mm$

32. For A and C, final surface area is greater than the initial surface area. Hence, surface energy increases and this increase is due to decrease in internal energy. Hence, temperature decreases. In B, surface area is decreasing

33. Conceptual related to surface tension and angle of contact

34. $2 \times \dfrac{4}{3}\pi R^3 = \dfrac{4}{3}\pi r^3 \Rightarrow r = 2^{1/3} R$

$U_i = 2 \times 4\pi R^2 T$

$U_f = 4\pi r^2 = 4\pi R^2 T 2^{2/3}$

$\therefore$ Heat lost $= u_i - u_f = 4\pi R^2 T\left[2 - 2^{2/3}\right]$

35. $\Delta P = \dfrac{4T}{R}$

$\dfrac{R_A}{R_B} = \dfrac{\Delta P_B}{\Delta P_A} = 2$

$\dfrac{V_A}{V_B} = \left(\dfrac{R_A}{R_B}\right) = 8$

36. Given, $P_A = 3P_B$

We know that excess pressure inside soap bubble, $\Delta_p = \dfrac{4T}{r}$

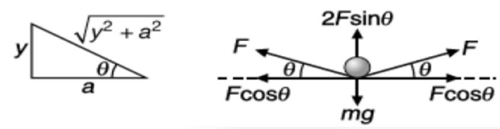
$\Rightarrow \quad \dfrac{P_A}{P_B} = \dfrac{r_B}{r_A} \Rightarrow \dfrac{3}{1} = \dfrac{r_B}{r_A}$

$\Rightarrow \quad \dfrac{r_A}{r_B} = \dfrac{1}{3}$

Hence, $\dfrac{V_A}{V_B} = \dfrac{1}{27}$

37. If l be the length of wire and λ is mass per unit length of wire, then weight of wire is $mg = (\lambda x)g$, acting vertically downwards

The force due to surface tension acting on each side of the wire is $F = Tl$. The free body diagram showing forces acting on the wire is shown in figure.



Vertically force acting upwards due to surface tension balances the weight of the wire, so we have

$$2Tl\sin\theta = mg = (\lambda l)g$$

$$\Rightarrow \quad T = \frac{\lambda g}{2\sin\theta} \quad \text{.........(1)}$$

Since $y << a$, so $\theta 1$ is small and hence $\sin\theta = \theta = \frac{y}{a}$

So , from equation (1), we get

$$T = \frac{\lambda g}{2(y/a)} = \frac{\lambda a g}{2y}$$

38. Surface tension of water $T = 7.2\times10^{-2}\,Nm^{-1}$

Radius of air bubble $R = 0.1\,mm = 10^{-4}\,m$

The excess pressure inside the air bubble is given by,

$$P_2 - P_1 + \frac{2T}{R}$$

Pressure inside the air bubble is

$$P_2 = P_1 + \frac{2T}{R}$$

Substituting the values, we have

$$P_2 = \left(1.013\times10^5\right) + \frac{\left(2\times7.2\times10^{-2}\right)}{10^{-4}}$$

$$\Rightarrow \quad P_2 = 1.027\times10^5\,Nm^{-2}$$

39. When the ring is about to leave the water surface, surface tension fore on it is

$$F_{ST} = 2\pi RT + 2\pi rT = 2\pi(R+r)T$$

Spring force $F_s = kx$

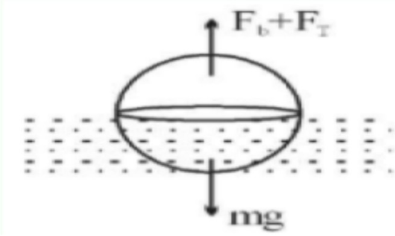
$$\Rightarrow \quad kx = 2\pi(R+r)T + mg$$

$$\Rightarrow \quad T = \frac{kx - mg}{2\pi(R+r)}$$

40. Related to angle of contact concept

41. Related to angle of contact concept

42.



Buoyant fore + surface tension $-mg$

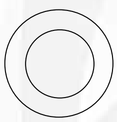
$$\sigma\frac{1}{2}g+2\pi RT-pVg$$

$$2\pi RT-\frac{(2\rho-\sigma)}{2}.\frac{4}{3}\pi R^3 g:\left[V-\frac{4}{3}\pi R^3\right]$$

$$R^3-\frac{3T}{(3\rho-\sigma)g}-R-\sqrt{\frac{3\times 7.5\times 10^{-2}N-m^{-1}}{(2\rho-\sigma)\times 10}}$$

$$R-\frac{3}{20\sqrt{(2\rho-\sigma)}}m-\frac{15}{\sqrt{2\rho-\sigma}}cm$$

43.



$$P_{gas}=P_a+\frac{4S}{r}$$

$PV^\gamma=$ constant [adiabatic process]

$$\left(P_{a1}+\frac{4S}{r_1}\right)\left(\frac{4}{3}\pi r_1^3\right)^{\frac{5}{3}}=\left(P_{a2}+\frac{4S}{r_2}\right)\left(\frac{4}{3}\pi r_2^3\right)^{5/3}$$

$$\frac{r_1^3}{r_2^3}=\left(\frac{P_{a2}+\frac{4S}{r_2}}{P_{a1}+\frac{4S}{r_1}}\right)$$

44. $h\,dg+\frac{2T}{r}-1100$

$$h\times 10^3\times 4.8-1100-\frac{2\times 0.06}{0.1\times 10^{-2}}$$

-980

$$h-\frac{980}{9.8\times 10^3}-0.1\,m$$

45. Theory based

46. The glass plate is held inside water as shown in figure. Here, $l=50cm; b=40\ cm$ and $t=5cm; T=50\times 10^{-3}N/m$.

The glass plate is under the action of the following forces

i) weight mg acting vertically downwards,
ii) force due to surface tension action vertically downwards and
iii) upthrust experienced due to the half immersed part of the plate.
Thus, apparent weight of the glass plate,

$$mg' = mg + 2(l+t)\times T - \left(l\times t\times \frac{b}{2}\right)\rho g$$

$$= 3\times 10 + 2(50+5)\times 10^{-2}\times 0.5 - \left(50\times 5\times \frac{40}{2}\right)\times 10^{-6}\times 10^{3}\times 10$$

$$= 30 + 0.55 - 50 = 19N$$

47. $\frac{4}{3}\pi R^3 = k\times \frac{4}{3}\pi r^3 \qquad \therefore\ R = K^{1/3} r$

$$\Delta U = S\left[k\times 4\pi r^2 - 4\pi R^2\right]$$

$$\therefore\quad \Delta U = 4\pi S\left[k\times \frac{R^2}{k^{2/3}} - R^2\right] = 4\pi S R^2\left[k^{1/3}-1\right]$$

$$\therefore\quad \Delta U = 4\pi S R^2\left[10^{\alpha/3}-1\right]\left[\because\ K = 10^{\alpha}\right]$$

$$\therefore\quad 10^{-3} = 4\pi\times \frac{0.4}{4\pi}\times\left(10^{-2}\right)^2\left[10^{\alpha/3}-1\right]$$

$$\therefore\quad 10^2 = 10^{\alpha/3} - 1 \text{Neglecting}$$

$$10^2 - 10^{\alpha/3} \Rightarrow \frac{\alpha}{3} = 2 \qquad \therefore\ \alpha = 6$$

48. Rise in temperature $\Delta t = \frac{3}{\rho s}\left(\frac{1}{r}-\frac{1}{R}\right)(J=1)$

Given $\Delta t = \frac{18T}{\rho s \eta}\left(\frac{1}{r}-\frac{1}{R}\right)$

By comparing $\eta = 6$

49. $2T\ell = W$

$$T = \frac{\omega}{2\ell} = \frac{1.5\times 10^{-2}}{2(0.3)}$$

$$= 2.5\times 10^{-2} N/m$$

$$= 25\times 10^{-3} N/m$$

50. $mg + F_{ST} = B \Rightarrow mg + 4at = a^2 h\rho - g \Rightarrow 10 + 4\times \frac{10}{4} = 10h \ or\ h = 2m$

CHEMISTRY

51. A)

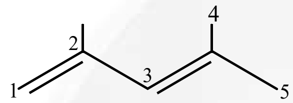
$$\overset{1}{C}H_3-\overset{2}{C}H_2-\overset{3}{C}H(CH_2-CH_3)-\overset{4}{C}H_2-\overset{5}{C}H(CH_3)-\overset{6}{C}H_2-\overset{7}{C}H_3$$

3-Ethyl-5-methylheptane

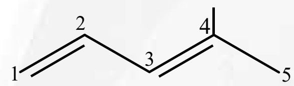
B) $\left(CH_3\right)_2C\left(C_3H_7\right)_2$

$$CH_3-\overset{4}{C}(CH_3)(\overset{5}{C}H_2-\overset{6}{C}H_2-\overset{7}{C}H_3)-\overset{2}{C}H_2-\overset{3}{C}H_2-\overset{1}{C}H_3$$

4,4-Dimethylheptane



C) 2-Methyl-1,3-pentadiene



D) 4-Methylpent-1-ene

52. 7-Hydroxyheptan-2-one is correct IUPAC name.

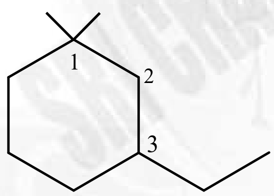
53.

$$\underset{7}{HC}\equiv\underset{6}{C}-\underset{5}{CH_2}-\underset{4}{CH}(OH)-\underset{3}{CH_2}-\underset{2}{CH}=\underset{1}{CH_2}$$

Hept-1-en-6-yn-4-ol

$$CH_3-CH(CH_3)-CH=CH-\overset{O}{\overset{\|}{C}}-H$$

54.

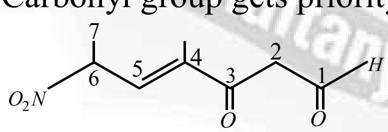


More branched carbon gets lower number

3-Ethyl 1, 1-dimethylcyclohexane

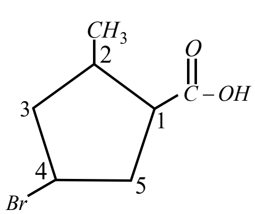
55.

56. Carbon skeleton with maximum number of carbon atoms is chosen (7). Carbonyl group gets priority over nitro group.



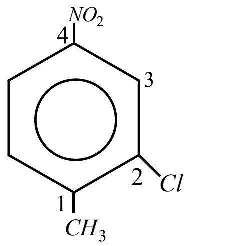
4-Methyl-6-nitro-3-oxohept-4-enal

57.



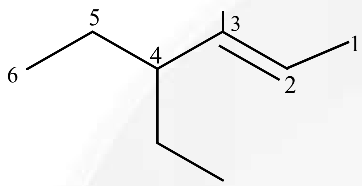
4-Bromo-2-methylcyclopentane carboxylic acid

58.



2-Chloro-1-methyl-4-nitrobenzene

59.

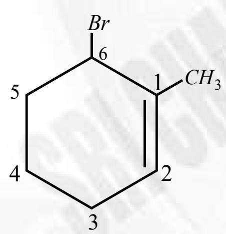


4-Ethyl-3-methylhex-2-ene

60.

$$\overset{5}{H_3C}-\overset{\overset{CH_3}{|}\,4}{\underset{\underset{CH_3}{|}}{C}}-\overset{3}{C}H_2-\overset{2}{C}H=\overset{1}{C}H_2$$

61. 2-Hydroxypropane-1,2,3-tricarboxylic acid
62. (N-Bromo)-2-keto-3-methylbutanamide
63. Ethanoic propanoic anhydride
64. 2-Bromo-5-hydroxybenzonitrile
65.



66. Cinnamic acid
67. 3-(trichloromethyl)-benzoic acid
68. 'CN' functional group gets more priority than $-\overset{\overset{O}{\|}}{C}-$ functional group.
    Choose the correct statement.
69. 'NH_2' group is not the main functional group
70. Secondary suffix for isocyanide is carbylamines
71. degree of unsaturation is 11
72. Start numbering from double bonded carbon where substituent is present
73. One double bond means degree of unsaturation = 1
    One triple bond means degree of unsaturation = 2
    One ring means degree of unsaturation = 1
74. 6 different functional groups are present
75. Primary hydrogens = 9