Sri Chaitanya IIT Academy, India

A.P, TELANGANA, KARNATAKA, TAMILNADU, MAHARASHTRA, DELHI, RANCHI

A right Choice for the Real Aspirant

ICON CENTRAL OFFICE, MADHAPUR-HYD

Sec: Sr. IPLCO **Date: 01-08-15**

Time: 9:00 AM to 12:00 Noon **RPTM-1** **Max.Marks: 360**

KEY SHEET

PHYSICS		CHEMISTRY		MATHS	
Q.NO	ANSWER	Q.NO	ANSWER	Q.NO	ANSWER
1	1	31	3	61	3
2	2	32	4	62	2
3	3	33	1	63	4
4	1	34	2	64	2
5	2	35	3	65	4
6	1	36	4	66	2
7	4	37	3	67	3
8	1	38	3	68	4
9	2	39	3	69	3
10	3	40	4	70	3
11	4	41	3	71	2
12	2	42	2	72	3
13	4	43	3	73	3
14	2	44	3	74	1
15	3	45	2	75	2
16	1	46	4	76	2
17	2	47	1	77	3
18	2	48	1	78	3
19	2	49	2	79	3
20	3	50	4	80	2
21	2	51	3	81	2
22	3	52	1	82	4
23	4	53	2	83	4
24	1	54	4	84	1
25	3	55	1	85	3
26	3	56	3	86	3
27	4	57	4	87	3
28	4	58	4	88	3
29	1	59	3	89	3
30	3	60	4	90	2

$\rightarrow$ Since motion is a straight line motion

$\rightarrow$ total distance travelled = $2\times1=2m$

Average speed = $\frac{2}{4}=0.5\ m/\sec$

29. (1) $\frac{22.4\times10^{-3}}{N_A\times\frac{4}{3}\pi r^3}$

30. (3)

Sun's angular diameter $\alpha=1920"$

$=1920\times4.85\times10^{-6}\ rad$

$=9.31\times10^{-3}\ rad$

Sun's diameter

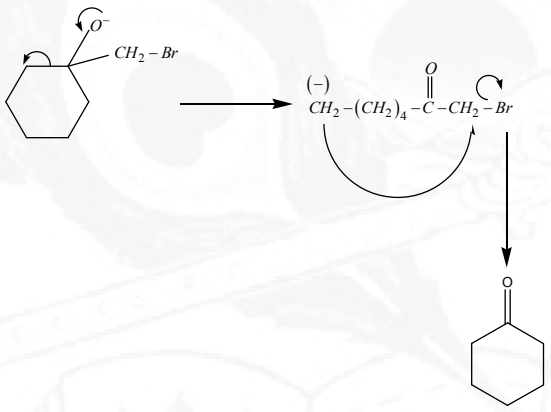
$d=\alpha D$

$=\left(9.31\times10^{-3}\right)\times\left(1.496\times10^{11}\right)m$

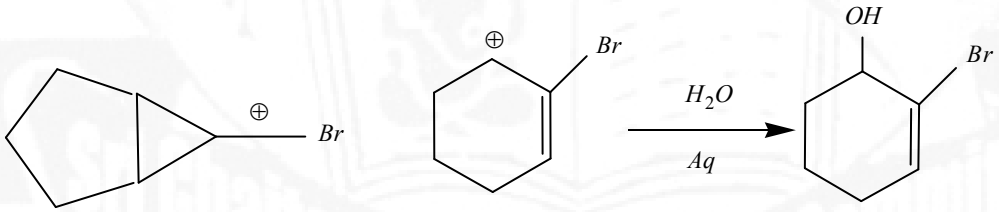
$=1.39\times10^{9}\ m$

CHEMISTRY-SOLUTIONS

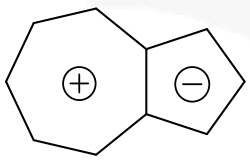
31.



32.



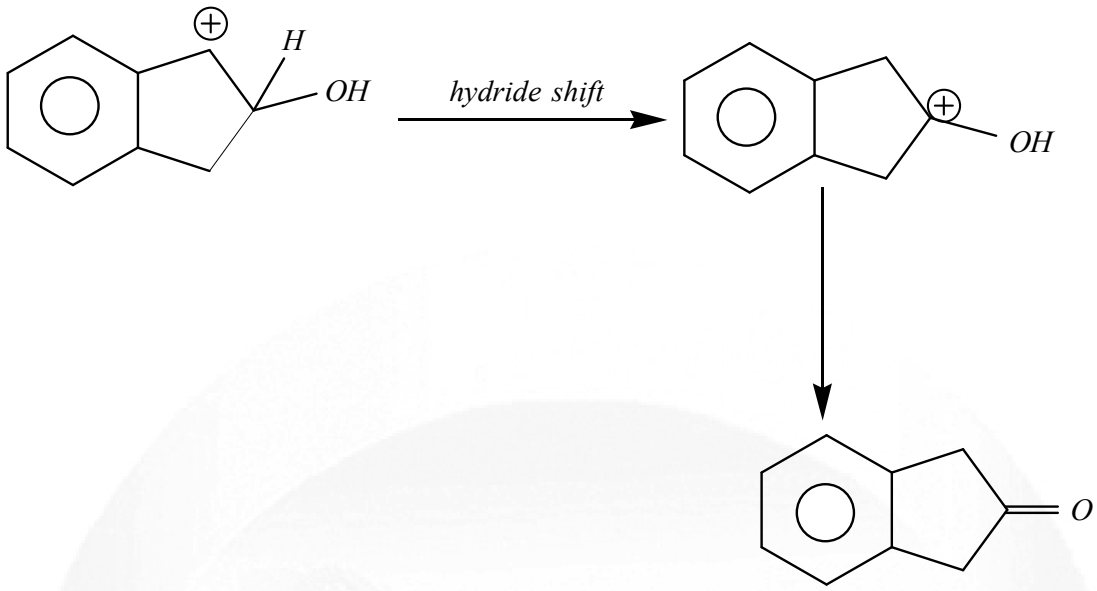
42. Azulene is polar



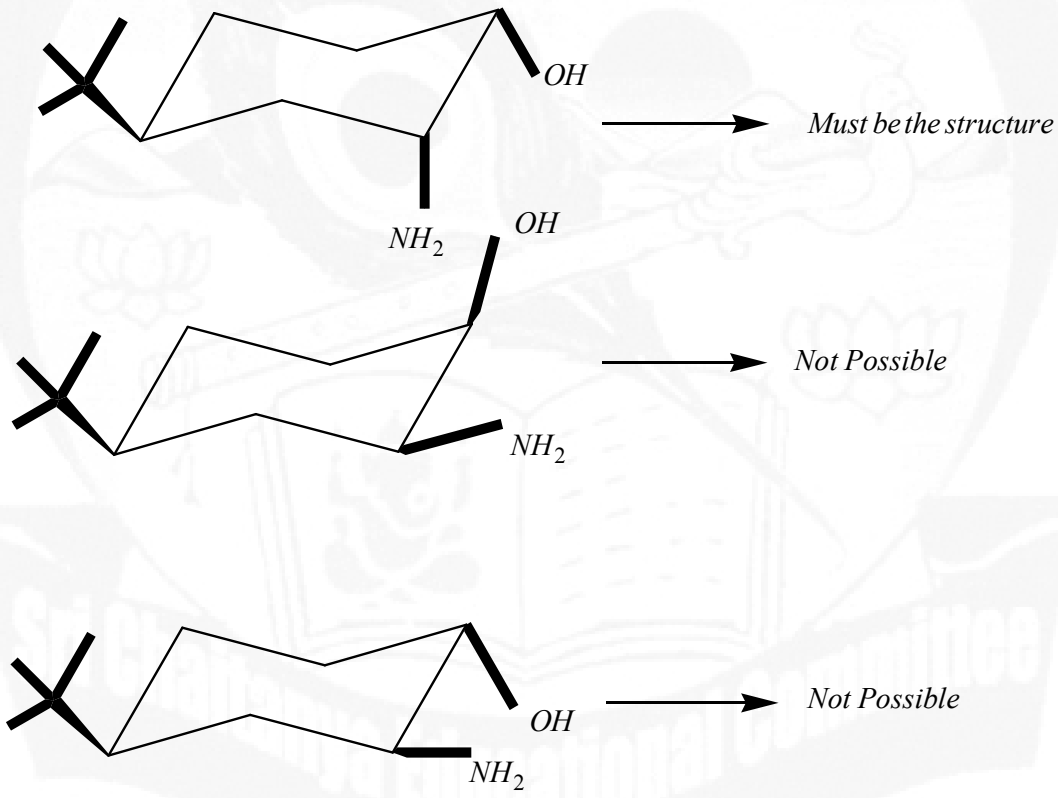
43. Based on hyper conjugation

47 Hybridisation of nitrogen changes from $sp^2\rightarrow sp^3$ pyrrole

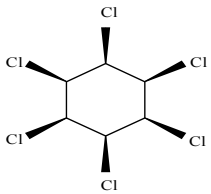
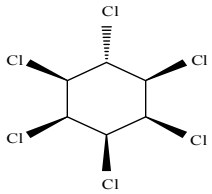
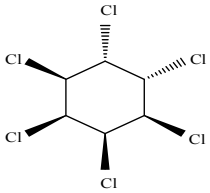
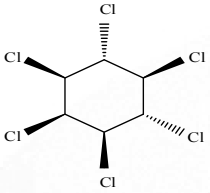
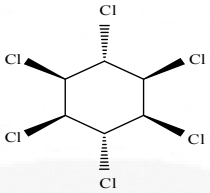
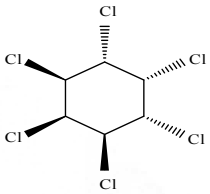
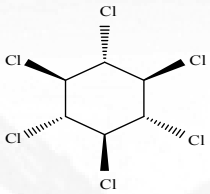
54.


H
OH
hydride shift
OH
O

55.


OH
Must be the structure
NH2
OH
Not Possible
NH2
OH
Not Possible
NH2

60.

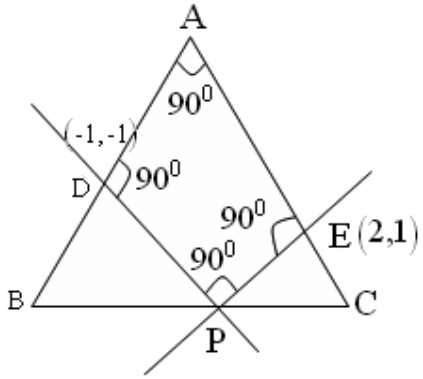








MATHS- HINTS

61) Clearly $x + y + 2 = 0$,

$x - y - 1 = 0$ are perpendicular to each other

$\therefore \angle BAC = 90^0$



$\therefore$ A is the ortho centre of $\Delta^{le}ABC$

Mid point of BC = P = circum centre = $\left(\frac{-1}{2}, \frac{-3}{2}\right)$

$\therefore\ PA^2 = DE^2 = \sqrt{9+4} = \sqrt{13}$