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 **JEE–ADVANCE** **Date: 27-09-15**
Time: 3 Hours **2014-P2-Model** **Max Marks: 180**

PAPER-II

KEY & SOLUTIONS

PHYSICS

1	**B**	2	**B**	3	**C**	4	**C**	5	**B**	6	**A**
7	**C**	8	**C**	9	**B**	10	**D**	11	**B**	12	**A**
13	**C**	14	**C**	15	**A**	16	**B**	17	**A**	18	**A**
19	**C**	20	**A**								

CHEMISTRY

21	**D**	22	**D**	23	**D**	24	**C**	25	**D**	26	**C**
27	**C**	28	**B**	29	**C**	30	**D**	31	**C**	32	**A**
33	**A**	34	**B**	35	**A**	36	**B**	37	**A**	38	**C**
39	**D**	40	**B**								

MATHS

41	**D**	42	**B**	43	**C**	44	**B**	45	**B**	46	**C**
47	**C**	48	**D**	49	**C**	50	**D**	51	**B**	52	**C**
53	**B**	54	**D**	55	**B**	56	**B**	57	**D**	58	**B**
59	**D**	60	**C**								

CHEMISTRY

21. Only Li directly combines with carbon.

22. $NaHCO_3 \xrightarrow[\Delta]{} Na_2CO_3 + CO_2 + H_2O$

$Na_2CO_3 + dil.acid \rightarrow CO_2$

28. $Ca_2B_6O_{11}.5H_2O$: sp^3 'B' atoms are 4 no of water is 5

30. $FeCl_3, AlCl_3, SnCl_2$ carbonates hydrolysed to form their hydroxide.

Passage-I(31 & 32)

$$Na\left[BH_4\right] + I_2 \rightarrow NaI + \underset{(A)}{B_2H_6} + H_2$$

$$B_2H_6 + \underset{(excess)}{NH_3} \xrightarrow{low\ temp} B_2H_6.2NH_3\ (B)$$

$$B_2H_6.2NH_3 \xrightarrow[\Delta]{} B_3N_3H_6\ (C)$$

$$B_2H_6 + \underset{(excess)}{NH_3} \xrightarrow[temp]{high} (BN)_n$$

Passage-III (35 & 36)

$$CaO + C \xrightarrow[temp]{high} \underset{(A)}{CaC_2} + CO$$

$$CaC_2 + N_2 \rightarrow CaCN_2\ (B) + C_{graphite}$$

35. $CaC_2 + H_2O \rightarrow Ca(OH)_2 + C_2H_2$

36. $N^{-1} = C = N^{-1}$ or $N^{-2} - C \equiv N$