



# 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

Time: 9:00 AM to 12:00 Noon

RPTM-13

Date: 05-12-15

Max.Marks: 360

## KEY SHEET

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

**CHEMISTRY**

31.  $\hbar = \frac{h}{2\pi}$

$$\lambda = \frac{h}{p} \Rightarrow \Delta p = \frac{-h}{\lambda^2} \Delta \lambda$$

32. for  $\text{Li}^+$ , 4<sup>th</sup> excited state = 3p

33. Conceptual

34.  $\lambda_{n_1, z} = 3.33 \text{ Å} \times \frac{n}{z}$

35. Conceptual

36.  $E_{n,z} = \frac{-2\pi^2 m e^4 k^2 z^2}{n^2 h^2} = -R_H \cdot c h \frac{z^2}{n^2}$

37. Max no of possible electronic transitions:  $7 \rightarrow 6, 6 \rightarrow 5, 5 \rightarrow 4, 4 \rightarrow 3, 3 \rightarrow 2, 2 \rightarrow 1$

38. Conceptual

39. Conceptual

40. Conceptual

41. Conceptual

42.  $\mu_s = \sqrt{n(n+2)} \text{ BM}$   
 $s = \sqrt{s(s+1)} \cdot \frac{h}{2\pi}$

43.  $\text{Avg.at.wt} = \frac{P_1 M_1 + P_2 M_2 + P_3 M_3}{P_1 + P_2 + P_3}$

44. % oleum =  $100 + 0.225 \%$  free  $\text{SO}_3$

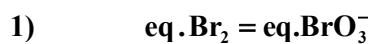
45. Conceptual

46.  $y = 120 \text{ mL}, \quad y = 3x \quad \therefore x = 40 \text{ mL}$

47.  $\text{eq. H}_2\text{O}_2 = \text{eq. Hypo}$

$$11.2\text{V} = 3.4\% \left( \frac{W}{V} \right) = 1\text{M} = 2\text{N}$$

48.



$$(\text{n-factor}): \frac{5}{3} \quad 5$$



$$(\text{n-factor}): 6 \quad 2$$

49. Conceptual

50. Conceptual

51. Conceptual

52. Conceptual

53. Conceptual

54. Conceptual

55. Conceptual

56. Conceptual

57. Conceptual

58. Conceptual

59. Conceptual

$$60. \text{G.No} = \frac{\text{wt.of lyophilic sol(mg)}}{V_{\text{sol}}(\text{C.C})} \times 10, \text{For 1 C.C of 10\% NaCl}$$