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: 05-12-15**

Time: 9:00 AM to 12:00 Noon **RPTM-13** **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. $\text{for } Li^{+}, 4^{th} \text{ exited state} = 3p$

33. Conceptual

34. $\lambda_{n_1} z = 3.33\,\overset{0}{A} \times \frac{n}{z}$

35. Conceptual

36. $E_{n,z} = \frac{-2\pi^2 me^4 k^2 z^2}{n^2 h^2} = -R_H.ch\frac{z^2}{n^2}$

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

38. Conceptual

39. Conceptual

40. Conceptual

41. Conceptual

42. $\mu_S = \sqrt{n(n+2)}\ BM$

$s = \sqrt{s(s+1).}\frac{h}{2\pi}$

43. $\text{Avg.at.wt} = \frac{P_1M_1 + P_2M_2 + P_3M_3}{P_1 + P_2 + P_3}$

44. % oleum= 100+0.225 % free SO_3

45. Conceptual

46. y = 120 mL, y = 3x $\therefore$ x = 40mL

47. $\text{eq}.H_2O_2 = \text{eq.Hypo}$

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

48.

1) $\text{eq}.Br_2 = \text{eq}.BrO_3^-$

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

2) $\text{eq}.BrO_3^- = \text{eq}.As^{3+}$

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

49. Conceptual

50. Conceptual

51. Conceptual

52. Conceptual

53. Conceptual

54. Conceptual

55. Conceptual

56. Conceptual

57. Conceptual

58. Conceptual

59. Conceptual

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