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: 12-09-15**

Time: 9:00 AM to 12:00 Noon **RPTM-6** **Max.Marks: 360**

KEY SHEET

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

MATHS

01. $f(x)=\dfrac{\ln\cos 2x}{\ln\cos x}\dfrac{\ln\sin 2x}{\ln\sin x}$

02. $ax^2+bx+c\equiv a(x-1)(x-2)$

03. $(gof)(x)=\begin{cases}x^2-1 & ,x\le -1\\ 1-x^2 & ,-1<x<0\\ x^2+1 & ,x\ge 0\end{cases}$

04. $f(x)=\begin{cases}1+x & ,x\le 0\\ \sqrt{1-x} & ,0<x\le 1\end{cases}$

05. $g(1)g(2)<0\Rightarrow 1<\lambda<8$

06. $f'(0)=\underset{x\to 0}{Lt}\left(x\sin\dfrac{1}{x}+x-3\right)$

07. If $4\le x\le 5,\ f(x)=4x-8$

08. $f(0)=0.\ \underset{h\to 0}{Lt}\dfrac{f(h)}{h}=4$

09. $f(x)=4-2x\ if\ x>1$

10. $g'(2)=\dfrac{1}{f'(1)}$

11. $\dfrac{d}{dx}\left(\cos^{-1}g(x)\right)=\dfrac{-1}{\sqrt{1-g^2(x)}}g'(x)$

12. $f(0), f'(0)=\underset{h\to 0}{Lt}\dfrac{f(h)}{h}=3\Rightarrow f(x)=\dfrac{3mx}{2}$

13. $f(x)=\begin{cases}b+c-x & ,x<b-k\\ a+(x-b)^2 & ,b-k\le x\le b+k\\ c+x-b & ,x>b+k\end{cases}$

14. $f(x)=0,\pm x$

15. $f''(x)=\begin{cases}x-1 & ,x\le 0\\ e^{-x}(x-1), & x>0\end{cases}$

16. $f'(x)=\dfrac{1}{\sqrt{1-x^4}}$

17. $\underset{x\to 0}{Lt}\dfrac{x-\sin x}{x^3}=\dfrac{1}{6}$

18. $f(x)=\begin{cases}-\sin(x^2-1) & ,-2<x<-1\\ 0 & ,x=-1\\ \ln(x+2) & ,-1<x<1\end{cases}$

19. $x^2+kx+k+1\ge 1\ \forall x\in R \text{ and } k>0$

20. $g'(y)=\dfrac{1}{f'(x)}$

22. $f^{-1}(2^{20})$

24. $b>3 \text{ and } b\le 4$

25. $f(x)=x^2-x+3$

26. $f(x)=\pm 1\ \forall x\in R$

27. $f(x)=x^3-6x^2+9x+2$

29. $\log_e(f(a)+f(b))$ may be negative