Answer key for TRB PG- 2015-Maths (Booklet series A)

Que. No.	KEY Booklet A	Answer	Que. No.	KEY Booklet A	Answer
1	C	$(\frac{t_p - t_o}{6})^2$	32	B	Not uniformly continuous
2	B	4	33	B	π
3	B	$\lambda_{n-1}P_{n-1} + \mu_{n+1}P_{n+1} = (\lambda_n + \mu_n)P_n$	34	D	[0,1]
4	C	$\frac{1}{\lambda_1} + \frac{1}{\lambda_2} - \frac{1}{\lambda_1 + \lambda_2}$	35	B	Closed and non empty
5	A	(c/2 , c/2) and $Z^*=(c/2)^2$	36	A	is bounded
6	A	3.5	37	A	countable
7	A	Same Constant	38	C	P > 1
8	D	Non-LLP	39	C	$f'(c) = \frac{f(b)-f(a)}{b-a}$
9	B	0	40	A	Every countable subset of R^1 has measure zero
10	B	Will delay the project time	41*	**	$\sqrt{2/5}$
11	C	At the corner points of the boundary	42	D	Infinite no. of roots
12	A	1065	43	B	2
13	C	$(m+n)C_m$	44	D	1
14	B	m+n-1	45	C	512 elements
15	A	$\begin{pmatrix} 2 & 4 \\ 5 & 2 \end{pmatrix}$	46	B	0
16	C	$a_n \to 0$, $b_n \to 0$	47	C	A right ideal
17	A	f is even and $b_n = 0$	48	D	$\sqrt{-5}$ is a prime element
18	D	$f*g(x)=\int_{-\infty}^{\infty} f(t)g(x-t)dt$	49	A	$\|x+y\|^2 = \|x\|^2 + \|y\|^2$
19	C	$e^{ias}F(s)$	50	D	{(5,0,0),(0,-3,0),(0,0,2)}
20	B	$1/\sqrt{s}, s > 0$	51	D	{1,3,5,7} under multiplication mod 8
21	B	1	52	C	G/G' is abelian
22	A	A convergent sequence	53	B	6
23	D	5/27	54	B	S_4 has a sub gp of order 12
24	A	Has no open covering	55	A	Ring of integers
25	D	f is not RI on[0,1] but LI	56	C	F-distribution
26	C	$Edu^2 + 2Fdu\,dv + Gdv^2$	57	A	$(1/\Gamma(\frac{r}{2})2^{\frac{r}{2}})x^{\frac{r}{2}-1}e^{-\frac{x}{2}}$
27	C	a great circle	58	A	regression
28	B	sphere	59	D	Analysis of variance
29	A	$\alpha < \pi/6$	60	C	λ
30	B	$-\kappa\tau$	61	B	Hyper geometric distribution
31	C	Both f(c+) and f(c-) exist and f(c+) = f(c-) ≠f(c)	62	D	Cauchy distribution

63	A	$P_r(\|X-\mu\| \geq k\sigma) \leq 1/k^2$	99	C	Convergent for all x
64	B	Weak law for large number	100	A	∞
65	D	Normal	101	A	T is singular $\Rightarrow \sigma(T) = \{0\}$
66	B	20/21	102	D	$\lim_{n\to\infty} \|x^n\|^{1/n}$
67	B	0	103	B	Nowhere analytic
68	D	≥ 0	104	A	divergent
69	C	E(E(X/Y))	105	C	$2\pi i e^2$
70	B	$7C_x(1/2)^x$	106	D	P = 1/2
71	B	Linearly independent	107	C	B(N,N') is Banach if N' is Banach
72	B	A singular point	108	A	If T is onto
73	A	$(n^2 - 1)/12$	109	D	$\|x+y\|^2 + \|x-y\|^2 = 2\|x\|^2 + 2\|y\|^2$
74	C	$\mu_4 - \frac{1}{2}h^2\mu_2 + \frac{7}{240}h^4$	110	B	$(\alpha T)* = \alpha T*, \alpha$ complex
75	B	$\frac{r_{12} - r_{13}r_{23}}{\sqrt{(1-r_{13}^2)(1-r_{23}^2)}}$	111	D	Ed.Silva
76	C	2/7	112	D	C.V.Raman
77	A	$x^2\frac{d^2y}{dx^2} + x\frac{dy}{dx} + (x^2 - 9) = 0$	113	B	1951
78	D	$4x^2$-2	114	B	Shanghai
79	B	$P(r)e^{rx}$	115	C	PSLV-C25
80	C	$W' + a_1W = 0$	116	B	Sama Veda
81	D	23/25	117	C	1920
82	B	P(A) – P(B)	118	C	26 November 1949
83	A	$P(A \cap B)$ /P(A)	119	A	Rajaji
84	C	$(n+2)/2^{m+1}$	120	C	Carbon-di-Oxide
85	D	4/9	121	B	J.Krishnamurti
86	A	Analytic	122	C	November 1989
87	B	$1/(1-Z^2)^{1/2}$	123	A	Helmberg
88	D	X^2e^{-3x}	124	D	UGC
89	C	$x^2y = cze^z$	125	D	Online Public Access Catalog
90	B	$4xyz = \frac{\partial z}{\partial x}\frac{\partial z}{\partial y}$	126	C	W.B.Cannon
91	B	Isolated	127	D	Schizophrenia
92	A	z = 0	128	B	EClecticism
93	B	$\frac{(t1-t2)(t3-t4)}{(t2-t4)(t3-t2)}$	129	D	1951
94	B	0	130	C	Betrand Russell
95	A	-1	131	B	British
96	D	R = 2	132	D	Masson's Disc
97	C	z = 1 , z = -1	133	A	Pinter-Patterson scale
98	B	Circle	134	D	Rat

135	B	Charles Judd	
136	A	Positive	
137	C	Perception	
138	A	B.F.Skinner	
139	D	Interest	
140	C	Skill	
141	D	United Nations Educational Scientific and Cultural Organisation	
142	B	Dr.Sampurnanand	
143	D	Hartog	
144	C	Robert Havinghust	
145	D	Simpson	
146	B	2 OCT 1978	
147	C	M.Bhaktavatchalam Committee(1963)	
148	B	Article 28(1)	
149	A	1949	
150	D	Dehradun	