

Answer Key to Matrices and Determinants

LEVEL - 1					Daily Tutorial Sheet – 1 to 6				
1	2	3	4	5	6	7	8	9	10
A	A	C	A	AB	C	B	A	A	A
11	12	13	14	15	16	17	18	19	20
B	C	B	A	B	B	D	B	A	D
21	22	23	24	25	26	27	28	29	30
B	B	B	B	B	B	D	B	C	A
31	32	33	34	35	36	37	38	39	40
A	D	D	C	A	ABD	A	BC	A	D
41	42	43	44	45	46	47	48	49	50
A	CD	AC	D	B	C	C	C	A	A
51	52	53	54	55	56	57	58	59	60
B	A	A	A	A	C	C	C	A	D
61	62	63	64	65	66	67	68	69	70
A	C	B	C	C	B	D	D	ABC	ABC
71	72	73	74	75	76	77	78	79	80
A	A	BC	AB	D	B	A	D	B	C
81	82	83	84	85	86	87	88	89	90
B	B	D	A	B	C	D	D	B	D

Level – 2 & Numerical Value Type	Daily Tutorial Sheet – 7 to 12
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91	92	93	94	95	96	97	98	99	100
AD	ABC	ABC	ABC	BC	ABC	ABC	BC	AD	ABC
101	102	103	104	105	106	107	109	110	111
ABCD	4	BD	C	CD	4	AD	B	BC	AB
112	113	114	115	116	117	118	119	120	121
BC	AB	BC	2	0	4	2	1	9	7
122	123	124	125	126	127	128			
4	0	3	2	8	4	0			
131 $\Delta = \begin{vmatrix} a & b & c \\ b & c & a \\ c & a & b \end{vmatrix} \begin{vmatrix} a & b & c \\ b & c & a \\ c & a & b \end{vmatrix} = \begin{vmatrix} a & b & c \\ b & c & a \\ c & a & b \end{vmatrix}^2 = [a(bc - a^2) + b(ac - b^2) + c(ab - c^2)]^2 = [3abc - a^3 - b^3 - c^3]^2$									
133			134		136				137
$0 + (\cos^2 x + \sin^2 x)$			$\frac{d^n}{dx^n} [f(x)]_{x=0} = 0$		$\frac{1}{2} \begin{bmatrix} 1 & -\sqrt{3} \\ \sqrt{3} & 1 \end{bmatrix}, (1, \sqrt{3}), (1 - \sqrt{3}, \sqrt{3} + 1), (-\sqrt{3}, 1)$				AD
141	142	143	144	145	146	147	148	149	150
(2)	(841)	(2)	(1)	(3)	(6)	(8)	(9)	(1)	(2)
151	152	153	154	155					
(4)	(896)	(8)	(4.5)	(1)					

JEE Main (Archive)	Daily Tutorial Sheet – 1 and 6
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1	2	3	4	5	6	7	8	9	10
C	D	A	D	D	D	C	A	C	D
11	12	13	14	15	16	17	18	19	20
B	A	A	B	D	C	C	A	D	A
21	22	23	24	25	26	27	28	29	30
B	C	C	A	B	A	B	B	B	B
31	32	33	34	35	36	37	38	39	40
D	C	A	A	B	A	A	D	D	D
41	42	43	44	45	46	47	48	49	50
C	C	D	A	D	B	C	A	C	A
51	52	53	54	55	56	57	58	59	60
A	D	C	D	D	C	B	B	D	A
61	62	63	64	65	66	67	68	69	70
(B)	(B)	(C)	(A)	(B)	(A)	(A)	(C)	(B)	(D)
71	72	73	74	75	76	77	78	79	80
(C)	(A)	(B)	(D)	(C)	(A)	(C)	(B)	(C)	(C)
81	82	83	84	85	86	87	88	89	90
(A)	(C)	(C)	(B)	(C)	(B)	(C)	(A)	(A)	(A)
91	92	93	94	95	96	97	98	99	100
(A)	(D)	A	D	13	D	D	B	C	B
101	102	103	104	105	106	107	108	109	110
672	A	B	D	A	B	8	C	10	A
111	112	113	114	115	116	117	118	119	120
5	C	D	C	C	D	C	B	A	3
121	122								
A	C								

JEE Advanced (Archive)					Daily Tutorial Sheet – 1 to 8				
1	2	3	4	5	6	7	8	9	10
A	A	A	D	D	C	C	A	B	B
11	12	13	14	15	16	17	18	19	20
B	B	B	A	B	A	B	B	D	A
21	22	23	24	25	26	27	28	29	30
B	B	CD	AB	BCD	BD	CD	AD	CD	BC
31	32	33	34	35	36	37	38	39	40
BC	BCD	AB	AD	C	ABC	ABD	AB	0	0
41	42	43	44	45	46	47	48	49	50
2 and 7	{-1, 2}	0	4	$\lambda = 0$	9	1	2	1	4.00
51	52	53	54	55	56	58	61		
D	B	A	D	C	D	4	$a = \frac{1}{4}, b = -\frac{5}{4}, f(x) = \frac{1}{4}x^2 - \frac{5}{4}x + 2$		
62	63				66			74	
0	$\Delta = \frac{4d^4}{a(a+d)^2(a+2d)^3(a+3d)^2(a+4d)}$				$\frac{p}{p-a} + \frac{q}{q-b} + \frac{r}{r-c} = 2$			$\alpha = n\pi$ or $n\pi + \pi/4$	
76			77			78			
$\theta = n\pi, n\pi + (-1)^n \frac{\pi}{6}, n \in \mathbb{Z}$			$x = \frac{4-5k}{7}, y = \frac{13k-9}{7}, z = k$			$m < -\frac{15}{2}$ or $m > 30$			
79							81		
$x = y = z = \lambda, \therefore$ For $k = 0$, the system has infinite solutions of $\lambda \in \mathbb{R}$.							BCD		