

GUJARAT TECHNOLOGICAL UNIVERSITY**Diploma Engineering – SEMESTER – 1(CtoD) New – EXAMINATION – Summer-2024****Subject Code: C4300001****Date: 06-06-2024****Subject Name: Mathematics****Time: 10:30 AM TO 12:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make Suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Use of programmable & Communication aids are strictly prohibited.
5. Use of non-programmable scientific calculator is permitted.
6. English version is authentic.
7. Use only OMR to answer this question paper.

No.	Question Text and Option. પ્રશ્ન અને વિકલ્પો.
1.	$\begin{vmatrix} 2 & 3 & 1 \\ 4 & 5 & 6 \\ 2 & 3 & 1 \end{vmatrix} = \underline{\hspace{2cm}}.$ A. -1 B. 1 C. 0 D. 2
૧.	$\begin{vmatrix} 2 & 3 & 1 \\ 4 & 5 & 6 \\ 2 & 3 & 1 \end{vmatrix} = \underline{\hspace{2cm}}.$ A. -1 B. 1 C. 0 D. 2
2.	If $D = \begin{vmatrix} 2 & 0 & 1 \\ 3 & 2 & 5 \\ 4 & 0 & 4 \end{vmatrix}$, then the minor of 1 = $\underline{\hspace{2cm}}$. A. -8 B. 8 C. 0 D. 1
૨.	જો $D = \begin{vmatrix} 2 & 0 & 1 \\ 3 & 2 & 5 \\ 4 & 0 & 4 \end{vmatrix}$ હોય તો, 1નો ઉપનિશ્ચાયક = $\underline{\hspace{2cm}}$. A. -8 B. 8 C. 0 D. 1
3.	$\begin{vmatrix} 2 & 3 \\ -5 & 4 \end{vmatrix} = \underline{\hspace{2cm}}.$ A. -23 B. 23 C. 32 D. -32
૩.	$\begin{vmatrix} 2 & 3 \\ -5 & 4 \end{vmatrix} = \underline{\hspace{2cm}}.$ A. -23 B. 23 C. 32 D. -32
4.	If $\begin{vmatrix} x & 1 \\ 1 & y \end{vmatrix} = 1$, then $xy = \underline{\hspace{2cm}}$. A. 2 B. 1 C. -2 D. 0
૪.	જો $\begin{vmatrix} x & 1 \\ 1 & y \end{vmatrix} = 1$ હોય તો, $xy = \underline{\hspace{2cm}}$. A. 2 B. 1 C. -2 D. 0
5.	$\begin{vmatrix} 1 & -\tan \theta \\ \tan \theta & 1 \end{vmatrix} = \underline{\hspace{2cm}}.$ A. $\sec^2 \theta$ B. $\operatorname{cosec} \theta$

	C.	$\tan\theta$	D.	$\cot^2\theta$
4.	$\left \frac{1}{\tan\theta} - \frac{-\tan\theta}{1} \right = \underline{\hspace{2cm}}.$			
	A.	$\sec^2\theta$	B.	$\operatorname{cosec}\theta$
	C.	$\tan\theta$	D.	$\cot^2\theta$
6.	If $f(x) = 2x + 1$, then $f(1) = \underline{\hspace{2cm}}.$			
	A.	3	B.	-3
	C.	2	D.	-2
6.	જો $f(x) = 2x + 1$ હોય તો, $f(1) = \underline{\hspace{2cm}}.$			
	A.	3	B.	-3
	C.	2	D.	-2
7.	If $f(x) = \log_a x$, then $f(1) = \underline{\hspace{2cm}}.$			
	A.	3	B.	2
	C.	1	D.	0
9.	જો $f(x) = \log_a x$ હોય તો, $f(1) = \underline{\hspace{2cm}}.$			
	A.	3	B.	2
	C.	1	D.	0
8.	If $f(x) = 2^x$, then $f(2) = \underline{\hspace{2cm}}.$			
	A.	1	B.	2
	C.	3	D.	4
8.	જો $f(x) = 2^x$ હોય તો, $f(2) = \underline{\hspace{2cm}}.$			
	A.	1	B.	2
	C.	3	D.	4
9.	If $f(x) = 3$, then $f(0) = \underline{\hspace{2cm}}.$			
	A.	0	B.	1
	C.	3	D.	-3
9.	જો $f(x) = 3$ હોય તો, $f(0) = \underline{\hspace{2cm}}.$			
	A.	0	B.	1
	C.	3	D.	-3
10.	$\log_a 81 \div \log_a 9 = \underline{\hspace{2cm}}.$			
	A.	0	B.	-1
	C.	a	D.	2
10.	$\log_a 81 \div \log_a 9 = \underline{\hspace{2cm}}.$			
	A.	0	B.	-1
	C.	a	D.	2
11.	$\log_2 32 = \underline{\hspace{2cm}}.$			
	A.	2	B.	32
	C.	5	D.	4
11.	$\log_2 32 = \underline{\hspace{2cm}}.$			
	A.	2	B.	32
	C.	5	D.	4
12.	$\log_x 1 = \underline{\hspace{2cm}}.$			
	A.	x	B.	0
	C.	1	D.	-1
12.	$\log_x 1 = \underline{\hspace{2cm}}.$			
	A.	x	B.	0
	C.	1	D.	-1
13.	$\log_3 2 \times \log_2 3 = \underline{\hspace{2cm}}.$			
	A.	-1	B.	2
	C.	3	D.	1
13.	$\log_3 2 \times \log_2 3 = \underline{\hspace{2cm}}.$			
	A.	-1	B.	2
	C.	3	D.	1
14.	$\log_a a = \underline{\hspace{2cm}}.$			
	A.	a	B.	1

	C.	0	D.	2
૧૪.	$\log_a a = \underline{\hspace{1cm}}$.			
	A.	a	B.	1
	C.	0	D.	2
15.	$\log_a 1 \times \log_a 2 \times \log_a 3 = \underline{\hspace{1cm}}$.			
	A.	0	B.	1
	C.	2	D.	3
૧૫.	$\log_a 1 \times \log_a 2 \times \log_a 3 = \underline{\hspace{1cm}}$.			
	A.	0	B.	1
	C.	2	D.	3
16.	$\log_{10} 2 + \log_{10} 5 = \underline{\hspace{1cm}}$.			
	A.	2	B.	5
	C.	10	D.	1
૧૬.	$\log_{10} 2 + \log_{10} 5 = \underline{\hspace{1cm}}$.			
	A.	2	B.	5
	C.	10	D.	1
17.	$\frac{\pi}{3}$ Radian = $\underline{\hspace{1cm}}$.			
	A.	60°	B.	30°
	C.	45°	D.	90°
૧૭.	$\frac{\pi}{3}$ રેડિયન = $\underline{\hspace{1cm}}$.			
	A.	60°	B.	30°
	C.	45°	D.	90°
18.	$180^\circ = \underline{\hspace{1cm}}$ Radian.			
	A.	2π	B.	3π
	C.	π	D.	4π
૧૮.	$180^\circ = \underline{\hspace{1cm}}$ રેડિયન.			
	A.	2π	B.	3π
	C.	π	D.	4π
19.	$\sec^2 \theta - \tan^2 \theta = \underline{\hspace{1cm}}$.			
	A.	0	B.	1
	C.	2	D.	3
૧૯.	$\sec^2 \theta - \tan^2 \theta = \underline{\hspace{1cm}}$.			
	A.	0	B.	1
	C.	2	D.	3
20.	$\sin(90^\circ + \theta) = \underline{\hspace{1cm}}$.			
	A.	$\cos \theta$	B.	$-\cos \theta$
	C.	$\sin \theta$	D.	$-\sin \theta$
૨૦.	$\sin(90^\circ + \theta) = \underline{\hspace{1cm}}$.			
	A.	$\cos \theta$	B.	$-\cos \theta$
	C.	$\sin \theta$	D.	$-\sin \theta$
21.	The principal period of $\cos \theta$ is $\underline{\hspace{1cm}}$.			
	A.	$\frac{\pi}{2}$	B.	$\frac{3\pi}{2}$
	C.	2π	D.	π
૨૧.	$\cos \theta$ નું મુખ્ય આવર્તમાન $\underline{\hspace{1cm}}$ છે.			
	A.	$\frac{\pi}{2}$	B.	$\frac{3\pi}{2}$
	C.	2π	D.	π
22.	$\cos 2x = \underline{\hspace{1cm}}$.			
	A.	$\cos^2 x + \sin^2 x$	B.	$\cos^2 x - \sin^2 x$
	C.	$2\sin x \cos x$	D.	$\cos x + \sin x$
૨૨.	$\cos 2x = \underline{\hspace{1cm}}$.			
	A.	$\cos^2 x + \sin^2 x$	B.	$\cos^2 x - \sin^2 x$
	C.	$2\sin x \cos x$	D.	$\cos x + \sin x$

23.	$2\sin 45^0 \cos 45^0 = \underline{\hspace{1cm}}.$		
	A.	0	B. 1
	C.	2	D. -1
23.	$2\sin 45^0 \cos 45^0 = \underline{\hspace{1cm}}.$		
	A.	0	B. 1
	C.	2	D. -1
24.	$\sin(-x) = \underline{\hspace{1cm}}.$		
	A.	$\sin x$	B. $-\sin x$
	C.	$\cos x$	D. $-\cos x$
24.	$\sin(-x) = \underline{\hspace{1cm}}.$		
	A.	$\sin x$	B. $-\sin x$
	C.	$\cos x$	D. $-\cos x$
25.	$\tan^{-1} 0 = \underline{\hspace{1cm}}.$		
	A.	0^0	B. 30^0
	C.	60^0	D. 90^0
24.	$\tan^{-1} 0 = \underline{\hspace{1cm}}.$		
	A.	0^0	B. 30^0
	C.	60^0	D. 90^0
26.	$\cot 225^0 = \underline{\hspace{1cm}}.$		
	A.	-1	B. 2
	C.	1	D. -2
26.	$\cot 225^0 = \underline{\hspace{1cm}}.$		
	A.	-1	B. 2
	C.	1	D. -2
27.	$\tan(\tan^{-1} x) = \underline{\hspace{1cm}}.$		
	A.	$\tan x$	B. $\tan^{-1} x$
	C.	x	D. 0
29.	$\tan(\tan^{-1} x) = \underline{\hspace{1cm}}.$		
	A.	$\tan x$	B. $\tan^{-1} x$
	C.	x	D. 0
28.	$\tan^{-1} \frac{2}{3} + \tan^{-1} \frac{3}{2} = \underline{\hspace{1cm}}.$		
	A.	2π	B. $\frac{3\pi}{2}$
	C.	$\frac{\pi}{2}$	D. π
28.	$\tan^{-1} \frac{2}{3} + \tan^{-1} \frac{3}{2} = \underline{\hspace{1cm}}.$		
	A.	2π	B. $\frac{3\pi}{2}$
	C.	$\frac{\pi}{2}$	D. π
29.	$\sec \theta \cos \theta = \underline{\hspace{1cm}}.$		
	A.	1	B. 2
	C.	-1	D. 0
29.	$\sec \theta \cos \theta = \underline{\hspace{1cm}}.$		
	A.	1	B. 2
	C.	-1	D. 0
30.	$\cos 60^0 \sec 0^0 + \sin 30^0 = \underline{\hspace{1cm}}.$		
	A.	-1	B. 1
	C.	0	D. 2
30.	$\cos 60^0 \sec 0^0 + \sin 30^0 = \underline{\hspace{1cm}}.$		
	A.	-1	B. 1
	C.	0	D. 2
31.	$ 6\vec{i} + 8\vec{j} = \underline{\hspace{1cm}}.$		
	A.	7	B. 8
	C.	9	D. 10

31.	$ 6\vec{i} + 8\vec{j} = \underline{\hspace{2cm}}$.			
	A.	7	B.	8
	C.	9	D.	10
32.	$ \vec{k} = \underline{\hspace{2cm}}$.			
	A.	0	B.	1
	C.	-1	D.	2
32.	$ \vec{k} = \underline{\hspace{2cm}}$.			
	A.	0	B.	1
	C.	-1	D.	2
33.	$\vec{j} \times \vec{i} = \underline{\hspace{2cm}}$.			
	A.	$-\vec{k}$	B.	$\vec{0}$
	C.	$\vec{k}$	D.	$\vec{j}$
33.	$\vec{j} \times \vec{i} = \underline{\hspace{2cm}}$.			
	A.	$-\vec{k}$	B.	$\vec{0}$
	C.	$\vec{k}$	D.	$\vec{j}$
34.	$\vec{j} \cdot \vec{j} + \vec{j} \cdot \vec{k} = \underline{\hspace{2cm}}$.			
	A.	1	B.	2
	C.	0	D.	3
34.	$\vec{j} \cdot \vec{j} + \vec{j} \cdot \vec{k} = \underline{\hspace{2cm}}$.			
	A.	1	B.	2
	C.	0	D.	3
35.	$ \vec{x} ^2 = \underline{\hspace{2cm}}$.			
	A.	$\vec{x}$	B.	$\vec{x} \cdot \vec{x}$
	C.	$\vec{x} + \vec{x}$	D.	$\vec{x} \times \vec{x}$
34.	$ \vec{x} ^2 = \underline{\hspace{2cm}}$.			
	A.	$\vec{x}$	B.	$\vec{x} \cdot \vec{x}$
	C.	$\vec{x} + \vec{x}$	D.	$\vec{x} \times \vec{x}$
36.	If $\vec{a} = (1,2,4)$ then $\frac{\vec{a}}{ \vec{a} }$ is a ____.			
	A.	zero vector	B.	unit vector
	C.	scalar	D.	number
36.	જો $\vec{a} = (1,2,4)$ હોય તો, $\frac{\vec{a}}{ \vec{a} }$ ____ છે.			
	A.	શૂન્ય સદિશ	B.	એકમ સદિશ
	C.	અદિશ	D.	સંખ્યા
37.	_____ is a unit vector.			
	A.	$(-1,0)$	B.	$(1,-1)$
	C.	$(1,1)$	D.	$(-1,1)$
39.	_____ એકમ સદિશ છે.			
	A.	$(-1,0)$	B.	$(1,-1)$
	C.	$(1,1)$	D.	$(-1,1)$
38.	$ \vec{i} + \vec{j} + \vec{k} = \underline{\hspace{2cm}}$.			
	A.	3	B.	0
	C.	1	D.	$\sqrt{3}$
38.	$ \vec{i} + \vec{j} + \vec{k} = \underline{\hspace{2cm}}$.			
	A.	3	B.	0
	C.	1	D.	$\sqrt{3}$
39.	$\vec{0} = \underline{\hspace{2cm}}$.			
	A.	$(0,0,0)$	B.	$(0,1,0)$
	C.	0	D.	$(-1,0,0)$
39.	$\vec{0} = \underline{\hspace{2cm}}$.			
	A.	$(0,0,0)$	B.	$(0,1,0)$
	C.	0	D.	$(-1,0,0)$

40.	If $\vec{x}$ and $\vec{y}$ are perpendicular to each other, then $\vec{x} \cdot \vec{y} = \underline{\hspace{2cm}}$.			
	A.	0	B.	1
	C.	-1	D.	xy
૪૦.	જો $\vec{x}$ અને $\vec{y}$ પરસ્પર લંબ હોય તો, $\vec{x} \cdot \vec{y} = \underline{\hspace{2cm}}$.			
	A.	0	B.	1
	C.	-1	D.	xy
41.	If $\vec{F} = (4,2,1)$ and $\vec{d} = (3,-1,2)$, then $W = \underline{\hspace{2cm}}$ unit.			
	A.	3	B.	6
	C.	9	D.	12
૪૧.	જો $\vec{F} = (4,2,1)$ અને $\vec{d} = (3,-1,2)$ હોય તો, $W = \underline{\hspace{2cm}}$ એકમ.			
	A.	3	B.	6
	C.	9	D.	12
42.	$-(\vec{y} \times \vec{x}) = \underline{\hspace{2cm}}$.			
	A.	$\vec{x}$	B.	$\vec{y}$
	C.	$\vec{x} \times \vec{y}$	D.	$\vec{0}$
૪૨.	$-(\vec{y} \times \vec{x}) = \underline{\hspace{2cm}}$.			
	A.	$\vec{x}$	B.	$\vec{y}$
	C.	$\vec{x} \times \vec{y}$	D.	$\vec{0}$
43.	$\vec{i} \times (\vec{j} \times \vec{k}) = \underline{\hspace{2cm}}$.			
	A.	0	B.	$\vec{0}$
	C.	$\vec{k}$	D.	$\vec{i}$
૪૩.	$\vec{i} \times (\vec{j} \times \vec{k}) = \underline{\hspace{2cm}}$.			
	A.	0	B.	$\vec{0}$
	C.	$\vec{k}$	D.	$\vec{i}$
44.	$(1,0,0) \times (0,1,0) = \underline{\hspace{2cm}}$.			
	A.	(1,1,1)	B.	(0,0,0)
	C.	(0,0,1)	D.	(1,0,0)
૪૪.	$(1,0,0) \times (0,1,0) = \underline{\hspace{2cm}}$.			
	A.	(1,1,1)	B.	(0,0,0)
	C.	(0,0,1)	D.	(1,0,0)
45.	The slope of the line $y = 2x - 3$ is $\underline{\hspace{2cm}}$.			
	A.	3	B.	-1
	C.	-3	D.	2
૪૫.	રેખા $y = 2x - 3$ નો ઢાળ $\underline{\hspace{2cm}}$ છે.			
	A.	3	B.	-1
	C.	-3	D.	2
46.	y-intercept of the line $x + y = 5$ is $\underline{\hspace{2cm}}$.			
	A.	5	B.	-5
	C.	2	D.	3
૪૬.	રેખા $x + y = 5$ ની y-અંતઃખંડ $\underline{\hspace{2cm}}$ છે.			
	A.	5	B.	-5
	C.	2	D.	3
47.	The slope of X-axis is $\underline{\hspace{2cm}}$.			
	A.	0	B.	-1
	C.	1	D.	2
૪૭.	X-અક્ષનો ઢાળ $\underline{\hspace{2cm}}$ છે.			
	A.	0	B.	-1
	C.	1	D.	2
48.	The slope of the line is $\underline{\hspace{2cm}}$.			
	A.	$\tan \theta$	B.	$\sin^{-1} \theta$
	C.	$\sec \theta$	D.	$\sin \theta$
૪૮.	રેખાનો ઢાળ $\underline{\hspace{2cm}}$ છે.			
	A.	$\tan \theta$	B.	$\sin^{-1} \theta$

	C.	$\sec\theta$	D.	$\sin\theta$
49.	The line $x - y = 1$ is not passing through the point ____.			
	A.	(3,2)	B.	(2,1)
	C.	(1,1)	D.	(0, -1)
૪૯.	રેખા $x - y = 1$ ____ બિંદુમાંથી પસાર થતી નથી.			
	A.	(3,2)	B.	(2,1)
	C.	(1,1)	D.	(0, -1)
50.	The slope of the line passing through the points (2,3) and (3,1) is ____.			
	A.	2	B.	-2
	C.	1	D.	-1
૫૦.	બિંદુઓ (2,3) અને (3,1)માંથી પસાર થતી રેખાનો ઢાળ ____ છે.			
	A.	2	B.	-2
	C.	1	D.	-1
51.	x-intercept of the line $2x + 3y = 4$ is ____.			
	A.	1	B.	4
	C.	2	D.	3
૫૧.	રેખા $2x + 3y = 4$ નો x-અંતઃખંડ ____ છે.			
	A.	1	B.	4
	C.	2	D.	3
52.	The radius of the circle $x^2 + y^2 = 49$ is ____.			
	A.	2	B.	-7
	C.	4	D.	7
૫૨.	વર્તુળ $x^2 + y^2 = 49$ ની ત્રિજ્યા ____ છે.			
	A.	2	B.	-7
	C.	4	D.	7
53.	The center of the circle $(x - 2)^2 + (y - 3)^2 = 25$ is ____.			
	A.	(-2, -3)	B.	(2, -3)
	C.	(2,3)	D.	(-2,3)
૫૩.	વર્તુળ $(x - 2)^2 + (y - 3)^2 = 25$ નું કેન્દ્ર ____ છે.			
	A.	(-2, -3)	B.	(2, -3)
	C.	(2,3)	D.	(-2,3)
54.	The radius of the circle $x^2 + y^2 + 2gx + 2fy + c = 0$ is ____.			
	A.	$g^2 + f^2 - c$	B.	$\sqrt{g^2 + f^2 + c}$
	C.	$g^2 - f^2 + c$	D.	$\sqrt{g^2 + f^2 - c}$
૫૪.	વર્તુળ $x^2 + y^2 + 2gx + 2fy + c = 0$ ની ત્રિજ્યા ____ છે.			
	A.	$g^2 + f^2 - c$	B.	$\sqrt{g^2 + f^2 + c}$
	C.	$g^2 - f^2 + c$	D.	$\sqrt{g^2 + f^2 - c}$
55.	The equation of the circle with radius 'r' and center (-1, -2) is ____.			
	A.	$(x + 1)^2 - (y + 2)^2 = r^2$	B.	$(x - 1)^2 - (y + 2)^2 = r^2$
	C.	$(x + 1)^2 + (y + 2)^2 = r^2$	D.	$(x - 1)^2 - (y - 2)^2 = r^2$
૫૫.	'r' ત્રિજ્યા અને (-1, -2) કેન્દ્રવાળા વર્તુળનું સમીકરણ ____ છે.			
	A.	$(x + 1)^2 - (y + 2)^2 = r^2$	B.	$(x - 1)^2 - (y + 2)^2 = r^2$
	C.	$(x + 1)^2 + (y + 2)^2 = r^2$	D.	$(x - 1)^2 - (y - 2)^2 = r^2$
56.	The center of the circle $x^2 + y^2 + 2gx + 2fy + c = 0$ is ____.			
	A.	(g, f)	B.	(-g, f)
	C.	(g, -f)	D.	(-g, -f)
૫૬.	વર્તુળ $x^2 + y^2 + 2gx + 2fy + c = 0$ નું કેન્દ્ર ____ છે.			
	A.	(g, f)	B.	(-g, f)
	C.	(g, -f)	D.	(-g, -f)
57.	The equation of the normal to the circle $x^2 + y^2 = 4$ at point (2,0) is ____.			
	A.	$x = 2$	B.	$y = 2$
	C.	$x = 0$	D.	$y = 0$

૫૭.	વર્તુળ $x^2 + y^2 = 4$ ને બિંદુ $(2,0)$ આગળ અભિલંબનું સમીકરણ _____ છે.			
	A.	$x = 2$	B.	$y = 2$
	C.	$x = 0$	D.	$y = 0$
58.	The equation of the tangent to the circle $x^2 + y^2 = r^2$ at point (a, b) is _____.			
	A.	$ax - by = r^2$	B.	$ax - by = r$
	C.	$ax + by = r^2$	D.	$bx + ay = r^2$
૫૮.	વર્તુળ $x^2 + y^2 = r^2$ ને બિંદુ (a, b) આગળ સ્પર્શકનું સમીકરણ _____ છે.			
	A.	$ax - by = r^2$	B.	$ax - by = r$
	C.	$ax + by = r^2$	D.	$bx + ay = r^2$
59.	$\lim_{\theta \rightarrow 0} \frac{\theta}{\tan \theta} = \text{_____}.$			
	A.	1	B.	θ
	C.	0	D.	$\tan \theta$
૫૯.	$\lim_{\theta \rightarrow 0} \frac{\theta}{\tan \theta} = \text{_____}.$			
	A.	1	B.	θ
	C.	0	D.	$\tan \theta$
60.	$\lim_{x \rightarrow 2} \frac{x^2 - 4}{x - 2} = \text{_____}.$			
	A.	1	B.	x
	C.	2	D.	4
૬૦.	$\lim_{x \rightarrow 2} \frac{x^2 - 4}{x - 2} = \text{_____}.$			
	A.	1	B.	x
	C.	2	D.	4
61.	$\lim_{\theta \rightarrow 0} \frac{\tan 14\theta}{\tan 7\theta} = \text{_____}.$			
	A.	2	B.	1
	C.	7	D.	14
૬૧.	$\lim_{\theta \rightarrow 0} \frac{\tan 14\theta}{\tan 7\theta} = \text{_____}.$			
	A.	2	B.	1
	C.	7	D.	14
62.	$\lim_{x \rightarrow \infty} \frac{1}{x} = \text{_____}.$			
	A.	x	B.	-1
	C.	1	D.	0
૬૨.	$\lim_{x \rightarrow \infty} \frac{1}{x} = \text{_____}.$			
	A.	x	B.	-1
	C.	1	D.	0
63.	$\lim_{x \rightarrow 0} \frac{3^x - 1}{x} = \text{_____}.$			
	A.	$\log_e 3$	B.	$\log_3 e$
	C.	1	D.	0
૬૩.	$\lim_{x \rightarrow 0} \frac{3^x - 1}{x} = \text{_____}.$			
	A.	$\log_e 3$	B.	$\log_3 e$
	C.	1	D.	0
64.	$\lim_{\theta \rightarrow 0} 2023 = \text{_____}.$			
	A.	θ	B.	1
	C.	2023	D.	0
૬૪.	$\lim_{\theta \rightarrow 0} 2023 = \text{_____}.$			
	A.	θ	B.	1

	C.	2023	D.	0
65.	$\lim_{y \rightarrow 2} (y^2 + 2y - 1) = \underline{\hspace{1cm}}.$			
	A.	1	B.	7
	C.	6	D.	0
ξ4.	$\lim_{y \rightarrow 2} (y^2 + 2y - 1) = \underline{\hspace{1cm}}.$			
	A.	1	B.	7
	C.	6	D.	0
66.	$\lim_{n \rightarrow \infty} \left(1 + \frac{1}{n}\right)^n = \underline{\hspace{1cm}}.$			
	A.	0	B.	-1
	C.	1	D.	e
ξξ.	$\lim_{n \rightarrow \infty} \left(1 + \frac{1}{n}\right)^n = \underline{\hspace{1cm}}.$			
	A.	0	B.	-1
	C.	1	D.	e
67.	$\lim_{x \rightarrow 0} \frac{e^x - 1}{x} = \underline{\hspace{1cm}}.$			
	A.	e	B.	0
	C.	1	D.	x
ξ9.	$\lim_{x \rightarrow 0} \frac{e^x - 1}{x} = \underline{\hspace{1cm}}.$			
	A.	e	B.	0
	C.	1	D.	x
68.	$\lim_{x \rightarrow 3} \frac{x^4 - 81}{x - 3} = \underline{\hspace{1cm}}.$			
	A.	81	B.	4
	C.	108	D.	3
ξ6.	$\lim_{x \rightarrow 3} \frac{x^4 - 81}{x - 3} = \underline{\hspace{1cm}}.$			
	A.	81	B.	4
	C.	108	D.	3
69.	$\lim_{n \rightarrow \infty} \frac{2n^3 - 2n}{n^3 + n} = \underline{\hspace{1cm}}.$			
	A.	n	B.	0
	C.	1	D.	2
ξ6.	$\lim_{n \rightarrow \infty} \frac{2n^3 - 2n}{n^3 + n} = \underline{\hspace{1cm}}.$			
	A.	n	B.	0
	C.	1	D.	2
70.	$\lim_{x \rightarrow 1} \frac{x^2 + x - 2}{x - 1} = \underline{\hspace{1cm}}.$			
	A.	1	B.	2
	C.	3	D.	-1
90.	$\lim_{x \rightarrow 1} \frac{x^2 + x - 2}{x - 1} = \underline{\hspace{1cm}}.$			
	A.	1	B.	2
	C.	3	D.	-1
