

Gujarat Technological University

Diploma Engineering C to D Bridge Course Examination

Subject Code: C320003

Date: 25/05/2016

Subject Name: Advanced Mathematics (Group-2)

Time: 10:30 AM TO 12:00 PM

Total Marks: 70

Instructions:

1. Attempt all questions.
2. Make suitable assumption wherever necessary.
3. Each question is of 1 mark.
4. Use of SIMPLE CALCULATOR is permissible. (Scientific/Higer Version not allowed)
5. English version is authentic.

No.	Question Text and Option. પ્રશ્ન અને વિકલ્પો.			
1.	Equation of line having slope -1 and passing from the point (2,1) is _____ .			
	A. $x + y - 3 = 0$	B. $x - y + 3 = 0$	C. $x - y - 3 = 0$	D. $x + y + 3 = 0$
1.	દ્વારા (2,1) પાંથી પસાર થતી અને -1 હાજર વાળી રેખનું સમીકરણ _____ છે.			
	A. $x + y - 3 = 0$	B. $x - y + 3 = 0$	C. $x - y - 3 = 0$	D. $x + y + 3 = 0$
2.	Two lines having slopes m_1 and m_2 respectively are perpendicular if _____ .			
	A. $m_1 \cdot m_2 = 1$	B. $m_1 \cdot m_2 = -1$	C. $m_1 = m_2$	D. $m_1 = m_2 + 1$
2.	દ્વારા લંબ રેખાઓ કે જેનો ઉઅનુક્રમે m_1 અને m_2 હોય તો _____ .			
	A. $m_1 \cdot m_2 = 1$	B. $m_1 \cdot m_2 = -1$	C. $m_1 = m_2$	D. $m_1 = m_2 + 1$
3.	If two lines $5x + 2y - 3 = 0$ and $kx + 2y + 7 = 0$ are parallel if $k =$ _____ .			
	A. 2	B. -7	C. 5	D. -3
3.	દ્વારા રેખા ઓ 5x + 2y - 3 = 0 અને kx + 2y + 7 = 0 જો સમાંતર હોય તો $k =$ _____ .			
	A. 2	B. -7	C. 5	D. -3
4.	Equation of a circle having centre (1,2) and radius 3 is _____ .			
	A. $(x + 1)^2 + (y + 2)^2 = 3$	B. $(x - 1)^2 + (y - 2)^2 = 3$	C. $(x + 1)^2 + (y + 2)^2 = 9$	D. $(x - 1)^2 + (y - 2)^2 = 9$
4.	કેંદ્ર (1,2) અને ત્રિજયા 3 વાળા વર્ત્તનું સમીકરણ _____ છે.			
	A. $(x + 1)^2 + (y + 2)^2 = 3$	B. $(x - 1)^2 + (y - 2)^2 = 3$	C. $(x + 1)^2 + (y + 2)^2 = 9$	D. $(x - 1)^2 + (y - 2)^2 = 9$
5.	Distance between two points (4,3) and (1,2) is _____ .			
	A. $\sqrt{12}$	B. $\sqrt{11}$	C. $\sqrt{10}$	D. $\sqrt{15}$
5.	દ્વારા (4,3) અને (1,2) વાચોનું અતર = _____ થાય.			
	A. $\sqrt{12}$	B. $\sqrt{11}$	C. $\sqrt{10}$	D. $\sqrt{15}$
6.	If midpoint joining two points A(2,1) and B(4,5) is M(3,x) then x = _____ .			
	A. 2	B. 3	C. 4	D. 5
6.	દ્વારા A(2,1) અને B(4,5) ને જોડતા રેખાંડનું મધ્યબિંદુ હોય M(3,x) તો x = _____ .			
	A. 2	B. 3		

	C.	4	D.	5
7.		X-intercept of the line $2x + 4y - 6 = 0$ is _____.		
	A.	2	B.	4
	C.	-6	D.	3
9.		રેખા $2x + 4y - 6 = 0$ નો X-અંતખંડ _____ થાય.		
	A.	2	B.	4
	C.	-6	D.	3
8.		Equation of normal to the circle is $x^2 + y^2 - 4x + 2y + 3 = 0$ at point (1,-2) is = _____.		
	A.	$x - y - 3 = 0$	B.	$x + y - 3 = 0$
	C.	$x - y + 3 = 0$	D.	None of above
c.		વર્તુળ $x^2 + y^2 - 4x + 2y + 3 = 0$ ના બિંદુ(1,-2) આગળના અભિલંઘનું સમીકરણ _____ છે.		
	A.	$x - y - 3 = 0$	B.	$x + y - 3 = 0$
	C.	$x - y + 3 = 0$	D.	આમાં નું એક પણ નહિં
9.		If $d \{ (x, 0), (0, 5) \} = 25$ then $x =$ _____.		
	A.	0	B.	± 1
	C.	± 2	D.	± 3
e.		જો $d \{ (x, 0), (0, 5) \} = 25$ હોય તો $x =$ _____.		
	A.	0	B.	± 1
	C.	± 2	D.	± 3
10.		If A (2, -7) and B (8, 3) then midpoint of line segment \overline{AB} is = _____.		
	A.	(5, -2)	B.	(-5, -2)
	C.	(-5, 2)	D.	(10, -4)
10.		જો A(2, -7) અને B(8, 3) હોય તો રેખાખંડ \overline{AB} ના મધ્યબિંદુના યામ = _____ થાય.		
	A.	(5, -2)	B.	(-5, -2)
	C.	(-5, 2)	D.	(10, -4)
11.		If A (-3, 5) and B (2, -4) then slope of \overline{AB} is _____.		
	A.	$\frac{9}{5}$	B.	$-\frac{9}{5}$
	C.	$\frac{5}{9}$	D.	$-\frac{5}{9}$
11.		જો A (-3, 5) અને B (2, -4) હોય તો \overline{AB} નો ઢાળ _____ થાય.		
	A.	$\frac{9}{5}$	B.	$-\frac{9}{5}$
	C.	$\frac{5}{9}$	D.	$-\frac{5}{9}$
12.		If line making angle 45° with positive X-axis then slope _____.		
	A.	0	B.	1
	C.	$\sqrt{3}$	D.	$\frac{1}{\sqrt{3}}$
12.		જો રેખા X-અક્ષની ધન દિશા સાથે 45° ઝણે બનાવે તો ઢાળ _____ થાય.		
	A.	0	B.	1
	C.	$\sqrt{3}$	D.	$\frac{1}{\sqrt{3}}$
13.		Equation of the line passing through two point A (2, 3) and B (7, 5) is _____ II		
	A.	$2x + 5y + 11 = 0$	B.	$2x - 5y + 11 = 0$
	C.	$2x + 5y - 11 = 0$	D.	$2x - 5y - 11 = 0$

૧૩.	A (2, 3) B અને (7, 5) માંથી પસાર થતી રેખાનું સમીકરણ _____ છી।			
	A. $2x + 5y + 11 = 0$	B. $2x - 5y + 11 = 0$	C. $2x + 5y - 11 = 0$	D. $2x - 5y - 11 = 0$
૧૪.	Centre of the circle $x^2 + y^2 = 4$ is _____.			
	A. (0, 0)	B. (0, 2)	C. (2, 0)	D. (2, 2)
૧૫.	વિન્દુ $x^2 + y^2 = 4$ નું કેન્દ્ર _____ થાય.			
	A. (0, 0)	B. (0, 2)	C. (2, 0)	D. (2, 2)
૧૬.	Radius of the circle $x^2 + y^2 - 2x + 4y - 1 = 0$ is _____.			
	A. 6	B. $\sqrt{6}$	C. 2	D. $\sqrt{7}$
૧૭.	વિન્દુ $x^2 + y^2 - 2x + 4y - 1 = 0$ ની ત્રિજયા _____ થાય.			
	A. 6	B. $\sqrt{6}$	C. 2	D. $\sqrt{7}$
૧૮.	If $f(x) = \sin 2x$, then $f\left(\frac{\pi}{6}\right) =$ _____.			
	A. $\frac{1}{2}$	B. $\frac{1}{\sqrt{2}}$	C. $\frac{\sqrt{3}}{2}$	D. 0
	જો $f(x) = \sin 2x$, તો $f\left(\frac{\pi}{6}\right) =$ _____.			
૧૯.	A. $\frac{1}{2}$	B. $\frac{1}{\sqrt{2}}$	C. $\frac{\sqrt{3}}{2}$	D. 0
	જો $f(x) = (-1)^x \cdot x$, તો $f(2) =$ _____.			
૨૦.	A. 2	B. -2	C. 1	D. -1
	જો $f(x) = (-1)^x \cdot x$, તો $f(2) =$ _____.			
૨૧.	A. 2	B. -2	C. 1	D. -1
	If $f(x) = x + 1$ and $g(x) = x^2 - 1$, then $fog(x) =$ _____.			
૨૨.	A. $x^2 - 1$	B. $x^2 + 1$	C. x^2	D. None of above
	જો $f(x) = x + 1$ અને $g(x) = x^2 - 1$, તો $fog(x) =$ _____.			
૨૩.	A. $x^2 - 1$	B. $x^2 + 1$	C. x^2	D. આમાં નું એક પણ નહિં
	$\lim_{n \rightarrow \infty} (1 + \frac{1}{n})^n =$ _____.			
૨૪.	A. 1	B. e	C. $\frac{1}{e}$	D. None of above
	$\lim_{n \rightarrow \infty} (1 + \frac{1}{n})^n =$ _____.			
૨૫.	A. 1	B. e	C. $\frac{1}{e}$	D. આમાં નું એક પણ નહિં
	$\lim_{\theta \rightarrow 0} \frac{\sin \theta}{\theta} =$ _____.			
૨૬.	A. 1	B. -1		

	C.	0	D.	None of above
20.		$\lim_{\theta \rightarrow 0} \frac{\sin \theta}{\theta} = \text{_____}$.		
	A.	1	B.	-1
21.	C.	0	D.	આમાં નું એક પણ નહિં
		$\lim_{x \rightarrow 0} \frac{4^x - 1}{x} = \text{_____}$.		
22.	A.	$\log x$	B.	1
	C.	$\log_e 4$	D.	0
23.		$\lim_{x \rightarrow 0} \frac{4^x - 1}{x} = \text{_____}$.		
	A.	$\log x$	B.	1
24.	C.	$\log_e 4$	D.	0
		$\lim_{x \rightarrow 0} \frac{x}{\tan 5x} = \text{_____}$.		
25.	A.	5	B.	-5
	C.	$\frac{1}{5}$	D.	0
26.		$\lim_{x \rightarrow 0} \frac{x}{\tan 5x} = \text{_____}$.		
	A.	5	B.	-5
27.	C.	$\frac{1}{5}$	D.	0
		$\lim_{x \rightarrow 1} \frac{x^2 - 1}{x - 1} = \text{_____}$.		
28.	A.	0	B.	2
	C.	-2	D.	1
29.		$\lim_{x \rightarrow 1} \frac{x^2 - 1}{x - 1} = \text{_____}$.		
	A.	0	B.	2
30.	C.	-2	D.	1
		$\lim_{n \rightarrow \infty} \left(\frac{6n^2 - 1}{2n^2 + 2} \right) = \text{_____}$.		
31.	A.	∞	B.	0
	C.	1	D.	3
32.		$\lim_{n \rightarrow \infty} \left(\frac{6n^2 - 1}{2n^2 + 2} \right) = \text{_____}$.		
	A.	∞	B.	0
33.	C.	1	D.	3
		$\lim_{x \rightarrow 0} \frac{\sqrt{9+x} - 3}{x} = \text{_____}$.		
34.	A.	$\frac{1}{6}$	B.	$\frac{1}{3}$
	C.	6	D.	3
35.		$\lim_{x \rightarrow 0} \frac{\sqrt{9+x} - 3}{x} = \text{_____}$.		
	A.	$\frac{1}{6}$	B.	$\frac{1}{3}$
36.	C.	6	D.	3
		$\lim_{x \rightarrow 0} \left(1 + \frac{2x}{3} \right)^{\frac{2}{x}} = \text{_____}$.		
37.	A.	2	B.	3
	C.	$e^{\frac{4}{3}}$	D.	1
38.		$\lim_{x \rightarrow 0} \left(1 + \frac{2x}{3} \right)^{\frac{2}{x}} = \text{_____}$.		
	A.	2	B.	3
39.	C.	$e^{\frac{4}{3}}$	D.	1

27.	$\lim_{x \rightarrow \infty} \left(1 + \frac{5}{x}\right)^x = \text{_____}.$			
	A. 5	B. e^5	C. 0	D. 1
29.	$\lim_{x \rightarrow \infty} \left(1 + \frac{5}{x}\right)^x = \text{_____}.$			
	A. 5	B. e^5	C. 0	D. 1
28.	$\lim_{n \rightarrow \infty} \frac{2 \sum n}{n^2} = \text{_____}.$			
	A. 0	B. 2	C. 1	D. N
26.	$\lim_{n \rightarrow \infty} \frac{2 \sum n}{n^2} = \text{_____}.$			
	A. 0	B. 2	C. 1	D. N
29.	$\frac{d}{dx} (\text{cosec } x) = \text{_____}.$			
	A. $\sec x \cdot \tan x$	B. $\text{cosec } x \cdot \cot x$	C. $-\text{cosec } x \cdot \cot x$	D. $\cot^2 x$
26.	$\frac{d}{dx} (\text{cosec } x) = \text{_____}.$			
	A. $\sec x \cdot \tan x$	B. $\text{cosec } x \cdot \cot x$	C. $-\text{cosec } x \cdot \cot x$	D. $\cot^2 x$
30.	$\frac{d}{dx} (\sin^{-1} x + \cos^{-1} x) = \text{_____}.$			
	A. 1	B. 0	C. -1	D. $\frac{2}{\sqrt{1-x^2}}$
30.	$\frac{d}{dx} (\sin^{-1} x + \cos^{-1} x) = \text{_____}.$			
	A. 1	B. 0	C. -1	D. $\frac{2}{\sqrt{1-x^2}}$
31.	$\frac{d}{dx} 2^x = \text{_____}.$			
	A. 2^x	B. 2^{x-1}	C. $2^x \log_e 2$	D. $2^x \log_2 e$
31.	$\frac{d}{dx} 2^x = \text{_____}.$			
	A. 2^x	B. 2^{x-1}	C. $2^x \log_e 2$	D. $2^x \log_2 e$
32.	$\frac{d}{dx} (e^{3x}) = \text{_____}.$			
	A. e^{3x}	B. $3e^{3x}$	C. $e^{3x} + 3$	D. $3e^x$
32.	$\frac{d}{dx} (e^{3x}) = \text{_____}.$			
	A. e^{3x}	B. $3e^{3x}$	C. $e^{3x} + 3$	D. $3e^x$
33.	$\frac{d}{dx} \log(\sin x) = \text{_____}.$			
	A. $\text{cosec } x$	B. $\tan x$	C. $\cot x$	D. $-\cot x$
33.	$\frac{d}{dx} \log(\sin x) = \text{_____}.$			
	A. $\text{cosec } x$	B. $\tan x$	C. $\cot x$	D. $-\cot x$
34.	$\frac{d}{dx} \cos^2 x = \text{_____}.$			

	A.	$2 \sin x \cdot \cos x$	B.	$\sin 2x$
	C.	$-\sin 2x$	D.	$\sin^2 x$
38.		$\frac{d}{dx} \cos^2 x = \dots$		
	A.	$2 \sin x \cdot \cos x$	B.	$\sin 2x$
35.		If $f(x) = 2^x$ then $f'(0) = \dots$		
	A.	2^x	B.	$\log_e 2$
34.		$\text{જો } f(x) = 2^x \text{ ત્થી } f'(0) = \dots$		
	A.	2^x	B.	$\log_e 2$
36.		If $y = \operatorname{cosec}^2 x - \cot^2 x$ then $\frac{dy}{dx} = \dots$		
	A.	1	B.	2
35.		$\text{જો } y = \operatorname{cosec}^2 x - \cot^2 x \text{ ત્થી } \frac{dy}{dx} = \dots$		
	A.	1	B.	2
37.		Maximum value of function $f(x) = \sin x$ is \dots		
	A.	0	B.	1
38.		$\text{ક્રિયા } f(x) = \sin x \text{ ની મહત્વમાં ક્રિમત } \dots \text{ શાય.}$		
	A.	0	B.	1
39.		$\frac{d}{dx} (3x^2 + \sin x + 2) = \dots$		
	A.	$3x^2 - \cos x$	B.	$6x + \cos x$
36.		$\frac{d}{dx} (3x^2 + \sin x + 2) = \dots$		
	A.	$3x^2 - \cos x$	B.	$6x + \cos x$
37.		$\text{જો } \frac{d}{dx} (\cos^{-1} x) = \dots$		
	A.	$\frac{1}{\sqrt{1-x^2}}$	B.	$\frac{1}{\sqrt{x^2-1}}$
38.		$\text{જો } \frac{d}{dx} (\cos^{-1} x) = \dots$		
	A.	$\frac{-1}{\sqrt{1-x^2}}$	B.	$\frac{-1}{\sqrt{x^2-1}}$
39.		$\text{If } y = \log 2 \text{ then } \frac{dy}{dx} = \dots$		
	A.	1	B.	0
40.		$\text{If } y = \log 2, \text{ ત્થી } \frac{dy}{dx} = \dots$		
	C.	$\frac{1}{2}$	D.	X
40.		$\text{જો } y = \log 2, \text{ ત્થી } \frac{dy}{dx} = \dots$		
	A.	1	B.	0
41.		$\text{If } y = x^{\frac{3}{2}} \text{ then } \frac{dy}{dx} = \dots$		
	C.	$\frac{1}{2}$	D.	X

	A.	$\frac{3\sqrt{x}}{2}$	B.	$\frac{-3\sqrt{x}}{2}$
	C.	$\frac{3}{2\sqrt{x}}$	D.	$\frac{-3}{2\sqrt{x}}$
	$\text{Ql } y = x^{\frac{3}{2}}, \text{ ql } \frac{dy}{dx} = \text{_____}.$			
41.	A.	$\frac{3\sqrt{x}}{2}$	B.	$\frac{-3\sqrt{x}}{2}$
	C.	$\frac{3}{2\sqrt{x}}$	D.	$\frac{-3}{2\sqrt{x}}$
42.	If $y = x \sin x$ then $\frac{dy}{dx} = \text{_____}.$			
	A.	$\cos x$	B.	$x \cos x - \sin x$
	C.	$x \cos x + \sin x$	D.	$x \sin x - \cos x$
43.	$\text{Ql } y = x \sin x, \text{ ql } \frac{dy}{dx} = \text{_____}.$			
	A.	$\cos x$	B.	$x \cos x - \sin x$
	C.	$x \cos x + \sin x$	D.	$x \sin x - \cos x$
44.	If $f(x) = \log \sqrt{x^2 + 1}$ then $f'(0) = \text{_____}.$			
	A.	0	B.	1
	C.	2	D.	-1
45.	$\text{Ql } f(x) = \log \sqrt{x^2 + 1} \text{ ql } f'(0) = \text{_____}.$			
	A.	0	B.	1
	C.	2	D.	-1
46.	$\int \sin x \, dx = \text{_____}.$			
	A.	$\cos x + c$	B.	$-\cos x + c$
	C.	cosec $x + c$	D.	$\sec x + c$
47.	$\int \tan x \, dx = \text{_____}.$			
	A.	$\cos x + c$	B.	$-\cos x + c$
	C.	cosec $x + c$	D.	$\sec x + c$
48.	$\int \tan^2 x \, dx = \text{_____} + C.$			
	A.	$\sec x \, dx$	B.	$\sec x \cdot \tan x$
	C.	$\tan x - x$	D.	$x - \tan x$
49.	$\int \tan^2 x \, dx = \text{_____} + C.$			
	A.	$\sec x \, dx$	B.	$\sec x \cdot \tan x$
	C.	$\tan x - x$	D.	$x - \tan x$
50.	$\int \sec x \, dx = \text{_____} + C.$			
	A.	$\log \tan \frac{x}{2} $	B.	$\log \cot \frac{x}{2} $
	C.	$\log \tan (\frac{\pi}{2} + \frac{x}{2}) $	D.	$\log \tan (\frac{\pi}{4} + \frac{x}{2}) $
51.	$\int \sec x \, dx = \text{_____} + C.$			
	A.	$\log \tan \frac{x}{2} $	B.	$\log \cot \frac{x}{2} $
	C.	$\log \tan (\frac{\pi}{2} + \frac{x}{2}) $	D.	$\log \tan (\frac{\pi}{4} + \frac{x}{2}) $
52.	$\int \sin^4 x \cdot \cos x \, dx = \text{_____} + C.$			
	A.	$\frac{\sin^5 x}{5}$	B.	$5 \sin^5 x$
	C.	$4 \sin^3 x$	D.	$\cos^4 x \cdot \sin x$
53.	$\int \sin^4 x \cdot \cos x \, dx = \text{_____} + C.$			
	A.	$\frac{\sin^5 x}{5}$	B.	$5 \sin^5 x$
	C.	$4 \sin^3 x$	D.	$\cos^4 x \cdot \sin x$
54.	$\int x e^x \, dx = \text{_____} + C.$			

	A.	e^x	B.	xe^x
	C.	$(x + 1)e^x$	D.	$(x - 1)e^x$
47.	$\int xe^x dx = \underline{\hspace{2cm}} + C.$			
	A.	e^x	B.	xe^x
49.	C.	$(x + 1)e^x$	D.	$(x - 1)e^x$
	$\int_0^1 \frac{4}{1+x^2} dx = \underline{\hspace{2cm}}.$			
50.	A.	π	B.	2π
	C.	$\frac{\pi}{4}$	D.	$\frac{\pi}{2}$
51.	$\int_0^1 \frac{4}{1+x^2} dx = \underline{\hspace{2cm}} + C.$			
	A.	$\frac{1}{2} \log \left \frac{x-1}{x+1} \right $	B.	$\sin^{-1}x$
52.	C.	$-\sin^{-1}x$	D.	$\frac{1}{2} \log \left \frac{x+1}{x-1} \right $
	$\int \frac{1}{x^2-1} dx = \underline{\hspace{2cm}} + C.$			
53.	A.	$\frac{1}{2} \log \left \frac{x-1}{x+1} \right $	B.	$\sin^{-1}x$
	C.	$-\sin^{-1}x$	D.	$\frac{1}{2} \log \left \frac{x+1}{x-1} \right $
54.	$\int_0^1 4x^3 dx = \underline{\hspace{2cm}}.$			
	A.	0	B.	1
55.	C.	2	D.	3
	$\int_0^1 4x^3 dx = \underline{\hspace{2cm}}.$			
56.	A.	0	B.	1
	C.	2	D.	3
57.	$\int \frac{e^x - e^{-x}}{e^x + e^{-x}} dx = \underline{\hspace{2cm}} + C.$			
	A.	$\log(e^x - e^{-x})$	B.	$\log(e^x + e^{-x})$
58.	C.	$-\log(e^x - e^{-x})$	D.	$-\log(e^x + e^{-x})$
	$\int \frac{e^x - e^{-x}}{e^x + e^{-x}} dx = \underline{\hspace{2cm}} + C.$			
59.	A.	$\log(e^x - e^{-x})$	B.	$\log(e^x + e^{-x})$
	C.	$-\log(e^x - e^{-x})$	D.	$-\log(e^x + e^{-x})$
60.	$\int (3x^2 - 3) dx = \underline{\hspace{2cm}} + C.$			
	A.	$6x$	B.	$3x^3 - x$
61.	C.	$x^3 - 3x$	D.	$3x^3 - 3x$
	$\int (3x^2 - 3) dx = \underline{\hspace{2cm}} + C.$			
62.	A.	$6x$	B.	$3x^3 - x$
	C.	$x^3 - 3x$	D.	$3x^3 - 3x$
63.	$\int \sin(2x - 7) dx = \underline{\hspace{2cm}} + C.$			
	A.	$-\cos(2x - 7)$	B.	$-\cos(2x)$
64.	C.	$-\cos(2x - 7)$	D.	$-\frac{\cos(2x - 7)}{2}$
	$\int \sin(2x - 7) dx = \underline{\hspace{2cm}} + C.$			
65.	A.	$-\cos(2x - 7)$	B.	$-\cos(2x)$
	C.	$-\frac{\cos(2x - 7)}{2}$	D.	$-\frac{\cos(2x - 7)}{7}$
66.	$\int_0^{\frac{\pi}{2}} \cos x dx = \underline{\hspace{2cm}}.$			

	A.	0	B.	$-\sin x + c$
	C.	1	D.	$\sin x + c$
પ૫.	$\int_0^{\frac{\pi}{2}} \cos x \, dx = \text{_____} .$			
	A.	0	B.	$-\sin x + c$
56.	$\int (\sin^2 x + \cos^2 x) \, dx = \text{_____} .$			
	A.	0	B.	1
૫૬.	$\int (\sin^2 x + \cos^2 x) \, dx = \text{_____} .$			
	A.	0	B.	1
57.	Area of region bounded by curve $y = x$, $x - axis$ and $x = 1, x = 2$ is = _____ unit .			
	A.	$\frac{3}{4}$	B.	$\frac{3}{2}$
૫૭.	વક્ષ $y = x$, $x - અક્ષ$ $x = 1$ અને $x = 2$ વડે ગેરાયેલા પ્રેરણનું ક્ષેત્રફળ _____ શાય.			
	A.	$\frac{3}{4}$	B.	$\frac{3}{2}$
58.	$\int e^x \left(\frac{1}{x} - \frac{1}{x^2} \right) \, dx = \text{_____} .$			
	A.	$\frac{e^x}{x}$	B.	$\frac{e^x}{x^2}$
૫૮.	$\int e^x \left(\frac{1}{x} - \frac{1}{x^2} \right) \, dx = \text{_____} .$			
	A.	$\frac{e^x}{x}$	B.	$\frac{e^x}{x^2}$
59.	For the data 5, a, 6, 18, 12 mean is 9 then a = _____ .			
	A.	5	B.	4
૫૯.	મહિતીના અવલોકનો 5, a, 6, 18, 12 માટે મધ્યક 9 હોય તો a = _____ .			
	A.	5	B.	4
60.	For information data 8, 3, 5, 12, 9, 14, 17, 1, 7 median of information is _____. A. 9 B. 8 C. 8.5 D. None of above			
	A.	9	B.	8
60.	જો મહિતીના અવલોકનો 8, 3, 5, 12, 9, 14, 17, 1, 7 હોય તો મધ્યસ્થ _____ . A. 9 B. 8 C. 8.5 D. આમાં નું એક પણ નહિં			
	A.	9	B.	8
61.	For information mean is 1.43 and median is 1.32 then mode is _____. A. 1 B. 1.1 C. 1.2 D. 0.9			
	A.	1	B.	1.1
૬૧.	જો મહિતીનો મધ્યક 1.43 અને મધ્યસ્થ 1.32 હોય તો બહુલક _____. A. 1 B. 1.1 C. 1.2 D. 0.9			
	A.	1	B.	1.1
62.	For information 5, 7, 10, 13, 12, 6, 17 mean deviation from mean is _____. A. 4 B. 3.4 C. 3 D. None of above			
	A.	4	B.	3.4
૬૨.	જો મહિતીનો મધ્યક 5, 7, 10, 13, 12, 6, 17 હોય તો મધ્યકથી સરેરાશ વિચલન _____. A. 4 B. 3.4 C. 3 D. None of above			
	A.	4	B.	3.4

	A.	4	B.	3.4
	C.	3	D.	આમાં નું એક પણ નહિં
63.	If given data is 8, 7, 4, 5, 6, 9, 7, 3, 8 and 7 then Mode is _____. A. 5 B. 7 C. 8 D. 9			
63.	અવલોકનો 8, 7, 4, 5, 6, 9, 7, 3, 8 અને 7 નો બહુલક ____ છે. A. 5 B. 7 C. 8 D. 9			
64.	For the observations -5,5,-2,8,-8,6,0,-1 and -10, median = _____. A. 0 B. 1 C. 2 D. -1			
64.	અવલોકનો -5,5,-2,8,-8,6,0,-1 અને -10 નો મધ્યસ્થ = ____ છે. A. 0 B. 1 C. 2 D. -1			
65.	The median of the ordered observations 4,6,x,y,10 and 18 is 8. Then their mean is _____. A. 9 B. 8 C. 10 D. 6			
65.	ચળતા કમમાં ગોઠવેલા અવલોકનો 4,6,x,y,10 અને 18 નો મધ્યસ્થ 8 છે, તો તેમનો મધ્યક = ____ શાય. A. 9 B. 8 C. 10 D. 6			
66.	The mean deviation from the median for the observations 1,6,9,3,8,4 is _____. A. 2.5 B. 3.0 C. 3.5 D. 2.8			
66.	અવલોકનો 1,6,9,3,8,4 નું મધ્યસ્થથી સરેરાશ વિચલન ____ શાય. A. 2.5 B. 3.0 C. 3.5 D. 2.8			
67.	The variance of the observations 3,4,5 and 8 is _____. A. 4.5 B. 3.5 C. 28.5 D. 1.87			
67.	અવલોકનો 3,4,5 અને 8 નું વિચરણ ____ છે. A. 4.5 B. 3.5 C. 28.5 D. 1.87			
68.	For 12 observations $\sum x_i = 102$ and $\sum x_i^2 = 1542$. Then the standard deviation of the observations is _____. A. 38.33 B. 7.50 C. 56.25 D. 11.34			
68.	12 અવલોકનો માટે $\sum x_i = 102$ અને $\sum x_i^2 = 1542$ હોય તો તે અવલોકનોનું પ્રમાણિત વિચલન ____ શાય. A. 38.33 B. 7.50 C. 56.25 D. 11.34			
69.	The range of the data 17, 15, 25, 34, 32 is _____. A. 18 B. 19 C. 34 D. 17			
69.	અવલોકનો 17, 15, 25, 34, 32 નો વિસ્તાર ____ શાય. A. 18 B. 19 C. 34 D. 17			
70.	For the data 15, 12, 14, a, 6, 18, 10 median is 11 then a = _____. A. 14 B. 11			

	C.	6	D.	0
90.	માહિતીના અવલોકનો 15, 12, 14, a, 6, 18, 10 નો મધ્યસ્થ 11 હોય તો a = ____ .			
	A.	14	B.	11
	C.	6	D.	0
