

GUJARAT TECHNOLOGICAL UNIVERSITY
DIPLOMA ENGINEERING- C to D Bridge Course Examination WINTER 2018

Subject Code: C320003**Date: 09-01-2019****Subject Name: ADVANCED MATHEMATICS(GROUP-2)****Time: 02:30 PM TO 04:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Each question is of 1 mark.
4. Use of only simple calculator is permitted. (Scientific/Higher Version not allowed).
5. English version is authentic.

No.	Question Text and Option. પ્રશ્ન અને વિકલ્પો.			
1.	Distance between two points (-3,0) and (3,0) is ____.			
	A.	3	B.	6
	C.	1	D.	9
૧.	બે બિંદુઓ (-3,0) અને (3,0) વચ્ચેનું અંતર = ____			
	A.	3	B.	6
	C.	1	D.	9
2.	Two lines having slopes m_1 and m_2 respectively are perpendicular if ____ .			
	A.	$m_1 m_2 = 1$	B.	$m_1 m_2 = -1$
	C.	$m_1 = m_2$	D.	$m_1 = m_2 + 1$
૨.	બે લંબ રેખાઓ કે જેનો ઢાળ અનુક્રમે m_1 અને m_2 તો ____			
	A.	$m_1 m_2 = 1$	B.	$m_1 m_2 = -1$
	C.	$m_1 = m_2$	D.	$m_1 = m_2 + 1$
3.	The slope of the line passing through the points A(1, -1) and B(4,5) is ____.			
	A.	1	B.	2
	C.	-2	D.	3
૩.	બિંદુઓ A(1, -1) અને B(4,5) માંથી પસાર થતી રેખાનો ઢાળ ____ થાય			
	A.	1	B.	2
	C.	-2	D.	3
4.	Slope of the line $2x - 2y = 6$ is ____.			
	A.	-2	B.	6
	C.	-1	D.	1
૪.	રેખા $2x - 2y = 6$ નો ઢાળ ____ થશે ?			
	A.	-2	B.	6
	C.	-1	D.	1
5.	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.	$(x-1)^2 + (y-2)^2 = 9$
૫.	કેન્દ્ર (1,2) અને ત્રિજ્યા 3 વાળા વર્તુળનું 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.	$(x-1)^2 + (y-2)^2 = 9$
6.	x-intercept of the line $2x+3y = 4$ is ____.			
	A.	-2	B.	3
	C.	2	D.	4
૬.	રેખા $2x+3y=4$ માટે X-અંતઃખંડ ____ થાય.			
	A.	-2	B.	3
	C.	2	D.	4
7.	If two lines $5x+2y-3=0$ and $kx+2y+7=0$ are parallel, if $k=$ ____.			
	A.	2	B.	-7

	C.	5	D.	-3
૭.	બે રેખાઓ $5x+2y-3=0$ અને $kx+2y+7=0$ જો સમાંતર હોય તો $k =$ _____			
	A.	2	B.	-7
	C.	5	D.	-3
8.	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
૮.	બિંદુઓ A(2,1) અને B(4,5) ને જોડતા રેખાખંડનું મધ્યબિંદુ હોય M(3,x) તો $x =$ _____ .			
	A.	2	B.	3
	C.	4	D.	5
9.	The point _____ is not on the line $x+y=1$.			
	A.	(0,1)	B.	(3,4)
	C.	(1,0)	D.	(-3,4)
૯.	નીચેનામાંથી બિંદુ _____ એ રેખા $x+y=1$ પર નથી.			
	A.	(0,1)	B.	(3,4)
	C.	(1,0)	D.	(-3,4)
10.	Equation of a circle having centre (0,0) and radius 3 is _____ .			
	A.	$(x)^2 + (y)^2 = 9$	B.	$(x)^2 - (y)^2 = 9$
	C.	$(x+1)^2 + (y+2)^2 = 9$	D.	$(x-1)^2 + (y-2)^2 = 9$
૧૦.	કેન્દ્ર (0,0) અને ત્રિજ્યા 3 વર્તુળનું સમીકરણ _____ છે.			
	A.	$(x)^2 + (y)^2 = 9$	B.	$(x)^2 - (y)^2 = 9$
	C.	$(x+1)^2 + (y+2)^2 = 9$	D.	$(x-1)^2 + (y-2)^2 = 9$
11.	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)
૧૧.	જો A (2, -7) અને B (8, 3) હોય તો રેખાખંડ $\overline{AB}$ નું મધ્યબિંદુના યામ = _____ થાય.			
	A.	(5,-2)	B.	(-5,-2)
	C.	(-5,2)	D.	(10,-4)
12.	For circle $2x^2 + 2y^2 + 4x - 2 = 0$ centre is _____ .			
	A.	(1,2)	B.	(1,0)
	C.	(0,1)	D.	(-1,0)
૧૨.	વર્તુળ $2x^2 + 2y^2 + 4x - 2 = 0$ નું કેન્દ્ર _____ છે.			
	A.	(1,2)	B.	(1,0)
	C.	(0,1)	D.	(-1,0)
13.	If A (-3, 5) and B (2, -4) then slope of $\overline{AB}$ is _____ .			
	A.	9/5	B.	-9/5
	C.	5/9	D.	-5/9
૧૩.	જો A (-3, 5) અને B (2, -4) હોય તો $\overline{AB}$ નો ઢાળ _____ થાય.			
	A.	9/5	B.	-9/5
	C.	5/9	D.	-5/9
14.	Centre of the circle $x^2 + y^2 = 4$ is _____ .			
	A.	(0,0)	B.	(0,2)
	C.	(2,0)	D.	(2,2)
૧૪.	વર્તુળ $x^2 + y^2 = 4$ નું કેન્દ્ર _____ થાય.			
	A.	(0,0)	B.	(0,2)
	C.	(2,0)	D.	(2,2)
15.	If $f(x) = 2^x + 3^x$ then $f(0) =$ _____			
	A.	5	B.	0
	C.	1	D.	2
૧૫.	જો $f(x) = 2^x + 3^x$ હોય તો $f(0) =$ _____ .			
	A.	5	B.	0
	C.	1	D.	2
16.	If $f(x) = \sin 2x$, then $f(\pi/6) =$ _____ .			

	A.	$\frac{1}{2}$	B.	$\frac{1}{\sqrt{2}}$
	C.	$\frac{\sqrt{3}}{2}$	D.	0
૧૬.	જો $f(x) = \sin 2x$, તો $f(\pi/6) =$ _____.			
	A.	$\frac{1}{2}$	B.	$\frac{1}{\sqrt{2}}$
	C.	$\frac{\sqrt{3}}{2}$	D.	0
17.	$\lim_{\theta \rightarrow 0} \left(\frac{\tan \theta}{2\theta} \right) =$ _____			
	A.	1	B.	2
	C.	$\frac{1}{2}$	D.	$\frac{2}{3}$
૧૭.	$\lim_{\theta \rightarrow 0} \left(\frac{\tan \theta}{2\theta} \right) =$ _____			
	A.	1	B.	2
	C.	$\frac{1}{2}$	D.	$\frac{2}{3}$
18.	$\lim_{x \rightarrow 3} \left(\frac{x^3-27}{x-3} \right) =$ _____			
	A.	27	B.	9
	C.	3	D.	0
૧૮.	$\lim_{x \rightarrow 3} \left(\frac{x^3-27}{x-3} \right) =$ _____			
	A.	27	B.	9
	C.	3	D.	0
19.	$\lim_{x \rightarrow 2} \left(\frac{x^2-3x+2}{x-2} \right) =$ _____			
	A.	0	B.	1
	C.	2	D.	3
૧૯.	$\lim_{x \rightarrow 2} \left(\frac{x^2-3x+2}{x-2} \right) =$ _____			
	A.	0	B.	1
	C.	2	D.	3
20.	$\lim_{n \rightarrow \infty} \left(1 + \frac{1}{n} \right)^n =$ _____			
	A.	1	B.	e
	C.	1/e	D.	None of above
૨૦.	$\lim_{n \rightarrow \infty} \left(1 + \frac{1}{n} \right)^n =$ _____			
	A.	1	B.	e
	C.	1/e	D.	આમાંનું એક પણ નહીં
21.	$\lim_{x \rightarrow 0} \frac{4^x-1}{x} =$ _____			
	A.	$\log x$	B.	1
	C.	$\log_e 4$	D.	0
૨૧.	$\lim_{x \rightarrow 0} \frac{4^x-1}{x} =$ _____			
	A.	$\log x$	B.	1
	C.	$\log_e 4$	D.	0
22.	$\lim_{x \rightarrow 0} \frac{x}{\tan 5x} =$ _____			
	A.	5	B.	-5
	C.	1/5	D.	0
૨૨.	$\lim_{x \rightarrow 0} \frac{x}{\tan 5x} =$ _____			
	A.	5	B.	-5
	C.	1/5	D.	0
23.	$\lim_{x \rightarrow 2} \left(\frac{x^2-8x+12}{x^2-4} \right) =$ _____			
	A.	-4	B.	4

	C.	-1	D.	1
23.	$\lim_{x \rightarrow 2} \left(\frac{x^2 - 8x + 12}{x^2 - 4} \right) = \underline{\hspace{2cm}}$			
	A.	-4	B.	4
	C.	-1	D.	1
24.	$\lim_{\theta \rightarrow 0} \left(\frac{\tan 7\theta}{\theta} \right) = \underline{\hspace{2cm}}$			
	A.	1/7	B.	1
	C.	0	D.	7
25.	$\lim_{\theta \rightarrow 0} \left(\frac{\tan 7\theta}{\theta} \right) = \underline{\hspace{2cm}}$			
	A.	1/7	B.	1
	C.	0	D.	7
26.	For $y = \cos x + 9$, $\frac{d^2 y}{dx^2} = \underline{\hspace{2cm}}$			
	A.	y	B.	-y
	C.	cos x	D.	-cos x
27.	For $y = \cos x + 9$, $\frac{d^2 y}{dx^2} = \underline{\hspace{2cm}}$			
	A.	y	B.	-y
	C.	cos x	D.	-cos x
28.	$\frac{d(\log(\sec x))}{dx} = \underline{\hspace{2cm}}$			
	A.	sec x	B.	tan x
	C.	1/sec x	D.	cot x
29.	$\frac{d(\log(\sec x))}{dx} = \underline{\hspace{2cm}}$			
	A.	sec x	B.	tan x
	C.	1/sec x	D.	cot x
30.	$\frac{d}{dx}(\sin^{-1} x + \cos^{-1} x) = \underline{\hspace{2cm}}$			
	A.	1	B.	0
	C.	-1	D.	$\frac{2}{\sqrt{1-x^2}}$
31.	$\frac{d}{dx}(\sin^{-1} x + \cos^{-1} x) = \underline{\hspace{2cm}}$			
	A.	1	B.	0
	C.	-1	D.	$\frac{2}{\sqrt{1-x^2}}$
32.	$\frac{d}{dx}(2^x) = \underline{\hspace{2cm}}$			
	A.	2^x	B.	2^{x-1}
	C.	$2^x \log_e 2$	D.	$2^x \log_2 e$
33.	$\frac{d}{dx}(2^x) = \underline{\hspace{2cm}}$			
	A.	2^x	B.	2^{x-1}
	C.	$2^x \log_e 2$	D.	$2^x \log_2 e$
34.	$\frac{d(\log x)}{dx} = \underline{\hspace{2cm}}$			
	A.	$1/x^2$	B.	$1/x$
	C.	e^x	D.	0
35.	$\frac{d(\log x)}{dx} = \underline{\hspace{2cm}}$			
	A.	$1/x^2$	B.	$1/x$
	C.	e^x	D.	0

30.	$\frac{d}{dx}(3x + \cos x) = \underline{\hspace{2cm}}$			
	A.	$3x^2 - \cos x$	B.	$6x + \sin x$
	C.	$6x + \cos x$	D.	$3 - \sin x$
30.	$\frac{d}{dx}(3x + \cos x) = \underline{\hspace{2cm}}$			
	A.	$3x^2 - \cos x$	B.	$6x + \sin x$
	C.	$6x + \cos x$	D.	$3 - \sin x$
31.	For $y = \sin \theta$, $x = \cos \theta$, $\frac{dy}{dx} = \underline{\hspace{2cm}}$			
	A.	$\cot \theta$	B.	$\tan \theta$
	C.	$-\tan \theta$	D.	$-\cot \theta$
31.	For $y = \sin \theta$, $x = \cos \theta$, $\frac{dy}{dx} = \underline{\hspace{2cm}}$			
	A.	$\cot \theta$	B.	$\tan \theta$
	C.	$-\tan \theta$	D.	$-\cot \theta$
32.	$\frac{d}{dx} \cos^2 x = \underline{\hspace{2cm}}$			
	A.	$2 \sin x \cos x$	B.	$\sin 2x$
	C.	$-\sin 2x$	D.	$\sin^2 x$
32.	$\frac{d}{dx} \cos^2 x = \underline{\hspace{2cm}}$			
	A.	$2 \sin x \cos x$	B.	$\sin 2x$
	C.	$-\sin 2x$	D.	$\sin^2 x$
33.	$\frac{d}{dx} \cos^{-1} x = \underline{\hspace{2cm}}$			
	A.	$\frac{1}{\sqrt{1-x^2}}$	B.	$\frac{1}{\sqrt{x^2-1}}$
	C.	$\frac{-1}{\sqrt{1-x^2}}$	D.	$\frac{-1}{\sqrt{x^2-1}}$
33.	$\frac{d}{dx} \cos^{-1} x = \underline{\hspace{2cm}}$			
	A.	$\frac{1}{\sqrt{1-x^2}}$	B.	$\frac{1}{\sqrt{x^2-1}}$
	C.	$\frac{-1}{\sqrt{1-x^2}}$	D.	$\frac{-1}{\sqrt{x^2-1}}$
34.	If $y = x \sin x$ $dy/dx = \underline{\hspace{2cm}}$.			
	A.	$\cos x$	B.	$x \cos x - \sin x$
	C.	$x \cos x + \sin x$	D.	$x \sin x - \cos x$
34.	If $y = x \sin x$ $dy/dx = \underline{\hspace{2cm}}$.			
	A.	$\cos x$	B.	$x \cos x - \sin x$
	C.	$x \cos x + \sin x$	D.	$x \sin x - \cos x$
35.	$\frac{d^2}{dx^2}(e^{2x}) = \underline{\hspace{2cm}}$			
	A.	$4e^x$	B.	$4e^{2x}$
	C.	$2e^{2x}$	D.	$2e^x$
35.	$\frac{d^2}{dx^2}(e^{2x}) = \underline{\hspace{2cm}}$			
	A.	$4e^x$	B.	$4e^{2x}$
	C.	$2e^{2x}$	D.	$2e^x$
36.	If $xy = 1$ then $\frac{dy}{dx} = \underline{\hspace{2cm}}$			
	A.	1	B.	0
	C.	$x + y \frac{dy}{dx} = 0$	D.	$y + x \frac{dy}{dx} = 0$
36.	If $xy = 1$ then $\frac{dy}{dx} = \underline{\hspace{2cm}}$			
	A.	1	B.	0

	C.	$x + y \frac{dy}{dx} = 0$	D.	$y + x \frac{dy}{dx} = 0$
37.	Equation of the motion of moving particle is given by $s = t^3 + 2t + 51$, then velocity at $t=1$ seconds is _____ units.			
	A.	5	B.	1
	C.	51	D.	3
૩૭.	ગતિ કરતા પદાર્થની ગતિ નું સમીકરણ $s = t^3 + 2t + 51$ હોય તો, $t=1$ સેકન્ડે પદાર્થ નો વેગ _____ થશે.			
	A.	5	B.	1
	C.	51	D.	3
38.	If $y = \log 2$ then $dy/dx =$ _____			
	A.	1	B.	0
	C.	$\frac{1}{2}$	D.	x
૩૮.	જો $y = \log 2$ હોય તો $dy/dx =$ _____			
	A.	1	B.	0
	C.	$\frac{1}{2}$	D.	x
39.	If $y = x^{3/2}$ then $dy/dx =$ _____			
	A.	$3\sqrt{x}/2$	B.	$-3\sqrt{x}/2$
	C.	$3/2\sqrt{x}$	D.	$-3/2\sqrt{x}$
૩૯.	જો $y = x^{3/2}$ હોય તો $dy/dx =$ _____			
	A.	$3\sqrt{x}/2$	B.	$-3\sqrt{x}/2$
	C.	$3/2\sqrt{x}$	D.	$-3/2\sqrt{x}$
40.	If $x^2 = 3xy + 9$ then $\frac{dy}{dx} =$ _____			
	A.	$\frac{3x - 2y}{3x}$	B.	$\frac{2x + 3y}{3x}$
	C.	$\frac{2x - 3y}{3x}$	D.	$\frac{2x - 3y}{x}$
૪૦.	જો $x^2 = 3xy + 9$ હોય તો $\frac{dy}{dx} =$ _____			
	A.	$\frac{3x - 2y}{3x}$	B.	$\frac{2x + 3y}{3x}$
	C.	$\frac{2x - 3y}{3x}$	D.	$\frac{2x - 3y}{x}$
41.	If $y = e^{\sin x}$ then $\frac{dy}{dx} =$ _____			
	A.	$e^{\sin x}$	B.	$e^{\sin x} \cos x$
	C.	$e^{\cos x}$	D.	$e^{\cos x} \cos x$
૪૧.	જો $y = e^{\sin x}$ હોય તો $\frac{dy}{dx} =$ _____			
	A.	$e^{\sin x}$	B.	$e^{\sin x} \cos x$
	C.	$e^{\cos x}$	D.	$e^{\cos x} \cos x$
42.	If $y = \operatorname{cosec}^2 x - \cot^2 x$ then $dy/dx =$ _____			
	A.	1	B.	2
	C.	0	D.	None of above
૪૨.	જો $y = \operatorname{cosec}^2 x - \cot^2 x$ હોય તો $dy/dx =$ _____			
	A.	1	B.	2
	C.	0	D.	આમાનું કોઈ પણ નહીં
43.	$\frac{d}{dx}(3x^2 + \sin x + 2) =$ _____			
	A.	$3x^2 - \cos x$	B.	$6x + \cos x$
	C.	$6x^2 + \cos x$	D.	$6x - \cos x$
૪૩.	$\frac{d}{dx}(3x^2 + \sin x + 2) =$ _____			
	A.	$3x^2 - \cos x$	B.	$6x + \cos x$
	C.	$6x^2 + \cos x$	D.	$6x - \cos x$
44.	$\int \tan^2 x \, dx =$ _____ + c			
	A.	$\sec x dx$	B.	$\sec x \tan x$

	C.	$\tan x - x$	D.	$x - \tan x$
44.	$\int \tan^2 x \, dx = \underline{\hspace{2cm}} + c$			
	A.	$\sec x dx$	B.	$\sec x \tan x$
	C.	$\tan x - x$	D.	$x - \tan x$
45.	$\int \tan x dx = \underline{\hspace{2cm}}$			
	A.	$\text{Log } \cos x + c$	B.	$\text{Log } \sec x + c$
	C.	$\text{Log } \sin x + c$	D.	$\text{Log } \tan x + c$
46.	$\int \tan x dx = \underline{\hspace{2cm}}$			
	A.	$\text{Log } \cos x + c$	B.	$\text{Log } \sec x + c$
	C.	$\text{Log } \sin x + c$	D.	$\text{Log } \tan x + c$
47.	$\int \frac{1}{x} dx = \underline{\hspace{2cm}}$			
	A.	$x^{-1} + c$	B.	$x^{-2} + c$
	C.	$-x^{-2} + c$	D.	$\text{Log } x + c$
48.	$\int \frac{1}{x} dx = \underline{\hspace{2cm}}$			
	A.	$x^{-1} + c$	B.	$x^{-2} + c$
	C.	$-x^{-2} + c$	D.	$\text{Log } x + c$
49.	$\int \sin(2x - 7) \, dx = \underline{\hspace{2cm}}$			
	A.	$-\cos(2x-7)+c$	B.	$-\cos(2x) + c$
	C.	$\frac{-\cos(2x - 7)}{2} + c$	D.	$\frac{-\cos(2x - 7)}{7} + c$
50.	$\int \sin(2x - 7) \, dx = \underline{\hspace{2cm}}$			
	A.	$-\cos(2x-7)+c$	B.	$-\cos(2x) + c$
	C.	$\frac{-\cos(2x - 7)}{2} + c$	D.	$\frac{-\cos(2x - 7)}{7} + c$
51.	$\int \sin^4 x \cos x \, dx = \underline{\hspace{2cm}}$			
	A.	$\frac{\sin^5 x}{5}$	B.	$5\sin^5 x$
	C.	$4\sin^3 x$	D.	$\cos^4 x \sin x$
52.	$\int \sin^4 x \cos x \, dx = \underline{\hspace{2cm}}$			
	A.	$\frac{\sin^5 x}{5}$	B.	$5\sin^5 x$
	C.	$4\sin^3 x$	D.	$\cos^4 x \sin x$
53.	$\int x e^x dx = \underline{\hspace{2cm}}$			
	A.	e^x	B.	$x e^x$
	C.	$(x + 1)e^x$	D.	$(x - 1)e^x$
54.	$\int x e^x dx = \underline{\hspace{2cm}}$			
	A.	e^x	B.	$x e^x$
	C.	$(x + 1)e^x$	D.	$(x - 1)e^x$
55.	$\int \frac{f'(x)}{f(x)} dx = \underline{\hspace{2cm}}$			
	A.	$\log f(x) + c$	B.	$\log f'(x) + c$
	C.	$\log f(x) + f'(x) + c$	D.	$n[f(x)]^{n-1} + c$
56.	$\int \frac{f'(x)}{f(x)} dx = \underline{\hspace{2cm}}$			

	A.	$\log f(x) + c$	B.	$\log f'(x) + c$
	C.	$\log f(x) + f'(x) + c$	D.	$n[f(x)]^{n-1} + c$
51.	$\int \cot \theta d\theta = \underline{\hspace{2cm}}$			
	A.	$\log \tan \theta $	B.	$\log \sin \theta $
	C.	$\log \sec \theta $	D.	$\log \cos \theta $
૫૧.	$\int \cot \theta d\theta = \underline{\hspace{2cm}}$			
	A.	$\log \tan \theta $	B.	$\log \sin \theta $
	C.	$\log \sec \theta $	D.	$\log \cos \theta $
52.	$\int \frac{1}{x+7} dx = \underline{\hspace{2cm}}$			
	A.	$\text{Log}(x+7) + c$	B.	$\text{Log}(7x) + c$
	C.	$\frac{7}{\log(x+7)} + c$	D.	$\frac{1}{\log(x+7)} + c$
૫૨.	$\int \frac{1}{x+7} dx = \underline{\hspace{2cm}}$			
	A.	$\text{Log}(x+7) + c$	B.	$\text{Log}(7x) + c$
	C.	$\frac{7}{\log(x+7)} + c$	D.	$\frac{1}{\log(x+7)} + c$
53.	$\int_0^1 4x^3 dx = \underline{\hspace{2cm}}$			
	A.	0	B.	1
	C.	2	D.	3
૫૩.	$\int_0^1 4x^3 dx = \underline{\hspace{2cm}}$			
	A.	0	B.	1
	C.	2	D.	3
54.	$\int (3x^2 - 3) dx = \underline{\hspace{2cm}} + c$			
	A.	$6x$	B.	$3x^3 - x$
	C.	$x^3 - 3x$	D.	$3x^3 - 3x$
૫૪.	$\int (3x^2 - 3) dx = \underline{\hspace{2cm}} + c$			
	A.	$6x$	B.	$3x^3 - x$
	C.	$x^3 - 3x$	D.	$3x^3 - 3x$
55.	$\int (\sin^2 x + \cos^2 x) dx = \underline{\hspace{2cm}} + c$			
	A.	0	B.	1
	C.	$\sin 2x$	D.	x
૫૫.	$\int (\sin^2 x + \cos^2 x) dx = \underline{\hspace{2cm}} + c$			
	A.	0	B.	1
	C.	$\sin 2x$	D.	x
56.	Area of region bounded by curve $y=x$, x -axis and $x=1$, $x=2$ is = $\underline{\hspace{2cm}}$ unit .			
	A.	$\frac{3}{4}$	B.	$\frac{3}{2}$
	C.	3	D.	1
૫૬.	વક્ર $y=x$, x - અક્ષ $x=1$ અને $x=2$ વડે ઘેરાયેલા પ્રદેશનું ક્ષેત્રફળ $\underline{\hspace{2cm}}$ થાય.			
	A.	$\frac{3}{4}$	B.	$\frac{3}{2}$
	C.	3	D.	1
57.	If $y = xe^x$ then $\frac{dy}{dx} = \underline{\hspace{2cm}}$			
	A.	$e^x (x+1)$	B.	$x(e^x + 1)$
	C.	$e^x (x-1)$	D.	$x(e^x - 1)$

૫૭.	If $y = xe^x$ then $\frac{dy}{dx} = \underline{\hspace{2cm}}$			
	A.	$e^x(x+1)$	B.	$x(e^x + 1)$
	C.	$e^x(x-1)$	D.	$x(e^x - 1)$
58.	$\int_0^\pi \sin x dx = \underline{\hspace{2cm}}$			
	A.	2	B.	-2
	C.	0	D.	1
૫૮.	$\int_0^\pi \sin x dx = \underline{\hspace{2cm}}$			
	A.	2	B.	-2
	C.	0	D.	1
59.	If mean of observations 4, 7, 6, a, 5, 9 is 6 then value of a is ____.			
	A.	6	B.	4
	C.	5	D.	2
૫૯.	અવલોકનો 4, 7, 6, a, 5, 9 નો મધ્યક જો 6 હોય તો a = ____.			
	A.	6	B.	4
	C.	5	D.	2
60.	If the mode of observations 2, 3, 3, 2, 5, 3, 7, 8, 2, c, 7 is 3 then value of c is ____.			
	A.	2	B.	7
	C.	3	D.	8
૬૦.	અવલોકનો 2, 3, 3, 2, 5, 3, 7, 8, 2, c, 7 નો બહુલક જો 3 હોય તો c = ____.			
	A.	2	B.	7
	C.	3	D.	8
61.	Mean of first five prime numbers is ____.			
	A.	5.5	B.	5
	C.	5.7	D.	5.6
૬૧.	પ્રથમ પાંચ અવિભાજ્ય સંખ્યાઓનો મધ્યક ____ છે			
	A.	5.5	B.	5
	C.	5.7	D.	5.6
62.	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
૬૨.	જો માહિતીના અવલોકનો 8, 3, 5, 12, 9, 14, 17, 1, 7 હોય તો મધ્યસ્થ ____.			
	A.	9	B.	8
	C.	8.5	D.	આમાનું કોઈ પણ નહીં
63.	For information mean is 1.43 and median is 1.32 then mode is ____.			
	A.	1.1	B.	1.5
	C.	1.2	D.	0.9
૬૩.	જો માહિતીનો મધ્યક 1.43 અને મધ્યસ્થ 1.32 હોય તો બહુલક ____.			
	A.	1.1	B.	1.5
	C.	1.2	D.	0.9
64.	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
૬૪.	અવલોકનો 1, 6, 9, 3, 8, 4 નું મધ્યસ્થથી સરેરાશ વિચલન ____ થાય.			
	A.	2.5	B.	3.0
	C.	3.5	D.	2.8
65.	For the data 12, 10, 15, 22, 30, 20, 32, 12, 20, 30 median is ____.			
	A.	25	B.	30
	C.	20	D.	22
૬૫.	માહિતીનાં અવલોકનો 12, 10, 15, 22, 30, 20, 32, 12, 20, 30 હોય તો મધ્યસ્થ ____ થશે.			
	A.	25	B.	30
	C.	20	D.	22
66.	Mean of first five even numbers is ____.			
	A.	6	B.	10

	C.	15	D.	30
૬૬.	પ્રથમ પાંચ બેક્રી સંખ્યાઓનો મધ્યક _____ છે			
	A.	6	B.	10
	C.	15	D.	30
67.	For information 5, 7, 10, 13, 12, 6, 17 mean deviation from mean is _____.			
	A.	4	B.	3.4
	C.	3	D.	None of these
૬૭.	જો માહિતીનો મધ્યક 5, 7, 10, 13, 12, 6, 17 હોય તો મધ્યકથી સરેરાશ વિચલન _____.			
	A.	4	B.	3.4
	C.	3	D.	આમાંથી કોઈ પણ નહીં
68.	The range of the data 17, 15, 25, 34, 32 is _____.			
	A.	18	B.	19
	C.	34	D.	17
૬૮.	અવલોકનો 17, 15, 25, 34, 32 નો વિસ્તાર _____ થાય.			
	A.	18	B.	19
	C.	34	D.	17
69.	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
૬૯.	અવલોકનો 8, 7, 4, 5, 6, 9, 7, 3, 8 અને 7 નો બહુલક _____ છે.			
	A.	5	B.	7
	C.	8	D.	9
70.	To find the standard deviation of ungrouped data first we have to find first _____.			
	A.	Median	B.	Mean
	C.	Mode	D.	None of these
૭૦.	અવર્ગીકૃત માહિતીનાં પ્રમાણિત વિચલન શોધવા માટે પ્રથમ આપણે _____ મેળવવું પડે.			
	A.	મધ્યસ્થ	B.	મધ્યક
	C.	બહુલક	D.	આમાંથી કોઈ પણ નહીં