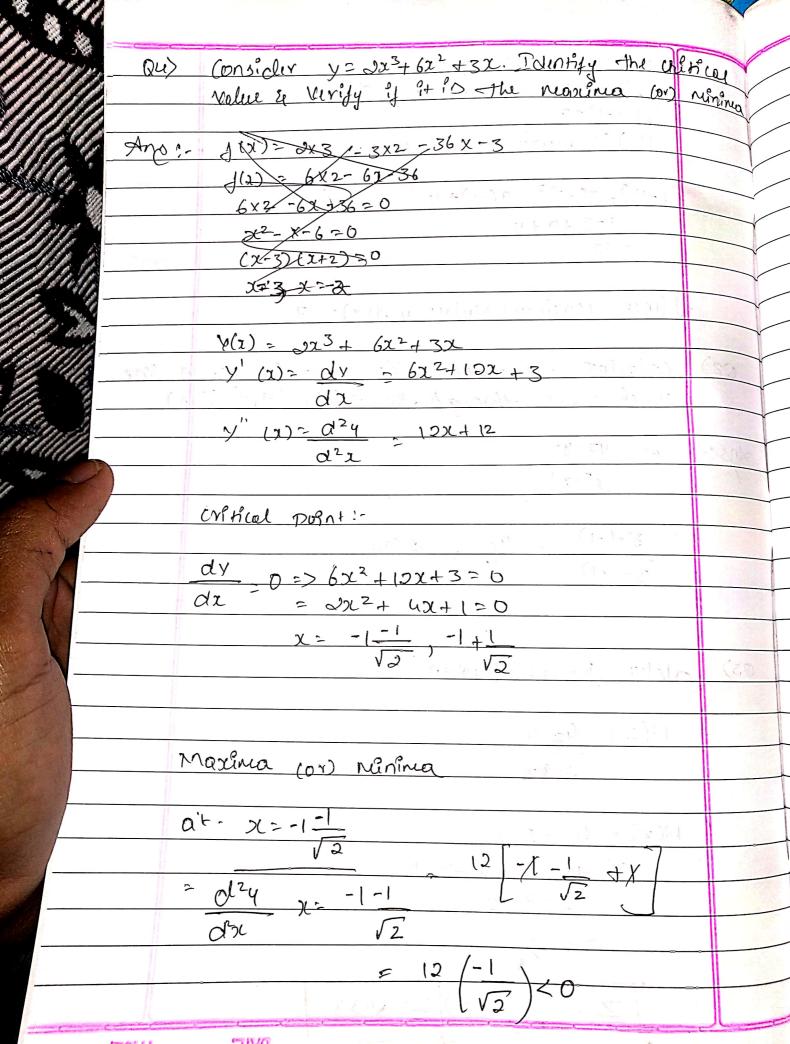
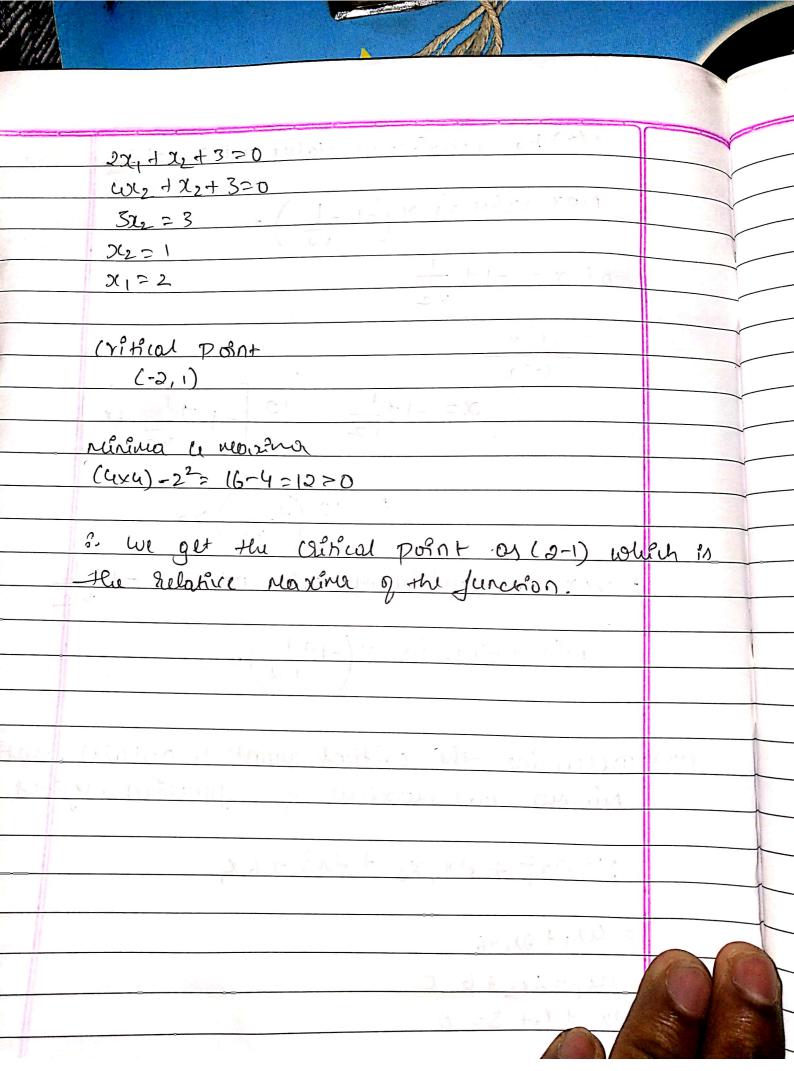
and the same of th		
-	Mothematical Joundations	
	Nome: Horizingh. R	
1	Batch Id: - DSNDM (OD 25082022 B	
- 1	find the maximum te núnimum value of the Junction x3-3x2-9x+12	
Q1>	1100 800 ×3-3×2-9× +12	-
	Janation X De Co	
Ans	$f(x) = 3x^2 - 6x - 9$	
2 111(0)	d yn = nota-1	
	dr dr	1
	Put 1'(x)=0	20
		02
ń,	322- 62- 9=0	
	x2-2x-3=0	1 - 1
V 5	x2-3x+X-3=0	Ans
	x(x-3)+1(x-3)=0	· ·
	(2c-3)(2+1)=0	
	χ=3 λ=-1	
	-> 4"(3)=6x3-9=18-9=9	
	1"(3) >0	
	f(z) is minimum at x=3	Q3
		_
	MPnPnum value = f(3)	1
	$(3)^3 - 3(3)^2 - 9 \times 3 + 12$	1
	= 27-27-27+12	
	2 -15	
	Hence Minimum value g f(x)=-15	
		1

	when x=-1, we not	
	when x=-1, we get -> 1(-1)=6x(-1)-q=-6-q=-15.	
	1(x) 2/2 margner of x = -1	
	No. of the second secon	1 1 1 1 1
	(-1)3-3(-1)2-9(-1)+12	
	= -1-3+0+10	
	2 17 0 - C = 18, C = 19	
	Hence Maximum rulue of 4(x)=17,	
	( A (X) = (4)	
02)	Calculate the Stope 4 the courseon of	
027	which passes through the points (-1,-1), (3)	a line
	SILKE PED SENT	8_)
SANA :-	ms 42-91	
	x2-x1	
	ः । तील । वर्षेति	
	= 8-(-1) = 9/ 2.25/	
	3-(-1) 4 = 1000 11 = 100 11 =	
	9:15:00 - 5:00 - 5:00	
201	1 1 10 10 10	
Q3)	Jolve Jor W(z) when	
	$W(z) > \frac{4z-5}{2-4z}$	
	2-52 Dearning (19)	
	1. X 19	
	W(2) = 42-5-2-2	
	= 142-2-5-2=0	
	32 -7 = 0	
	2=7	
	Z=7/3/wr) Z= 2.33	



: y(x) hos reaxinum value at x=-1=1	
2. y (1) hos reasinum talle de 5/2	
ning Nax Value is y (-1-1)	
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	
$at x = -1 + \frac{1}{\sqrt{2}}$	
$\frac{2}{2} \frac{d^2y}{d^2z}$	
$x = -1 + \frac{1}{\sqrt{2}} = 12 - \frac{1}{\sqrt{2}} + \frac{1}{\sqrt{2}}$	
$\sqrt{2}$ $\sqrt{2}$	
Charles of the second second second	
$= 12 \left( \frac{1}{\sqrt{2}} \right) > 0$	
6- y(x) has minimum value at x=-1+1	
0160 1/-0-1	
nun volue is y (-1+1)	
Q5) Determine the critical point 1, obtain re	loby
Ninêma (ox) marcina o a junction defin	
6	
$y=\partial x^2+\partial x, x_2+\partial x^2+6x$	
$= 4x_1 + 3x_2 + 6$	-
(ex, + 2x2 + 6 = 0	
22, + 2,+ 320	-
21=4; 22=2 22=4x2 +2x1	-
$4x_2 + 3x_1 = 0$	
2×2+x,=0	-
$\chi_{12} = \partial \chi_{1}$	



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