	Ex # 4.7	
	a last the same being a facility of	
	Q #11:-	
	$x^2y'' + 5xy' + 4y = 0 - 0$	
	Sol:- $y = n^{m} - 0$ $\frac{dy}{dx} = mn^{m-1} - 3$	
	$dy = mx^{m-1} - 3$	
,	du	
	$\frac{d^2y}{d^2u} = m(m-1)u^{m-2} - \omega$	
	d^2u	
	Substitute eq U), (2), (3), (4)	
	$u^{2}m(m-1)n^{m-2}+5umn^{m-1}+uu^{m}$	0
	$m(m-1)n^{m} + 5mn^{m} + 4n^{m} = 0$	
	$n^{m}(m(m-1) + 5m + 4) = 0$	
	$n^{m} \neq 0$	
	$m^2 - m + 5m + 4 = 0$	
	$m^2 + 4m + 4 = 0$	363
	$m^2 + 2m + 2m + 4 = 0$	
	m(m+2)+2(m+2)=6	
	(m+2)(m+2)=0	
1		

										- 0								
2, 2, -2	4 = c1 x -2 + c3 x -2(1mx)=0	0.#12:-	x 4" + 8x4" + 64 = 0	$\int_{0}^{\infty} (x + y)^{2} dx$	$f = m \times m = f$	$y'' = m(m-1)x^{m-2}$	Substitute eg . us , us ond	(3)		. x2m(m-1)2 +8xm2 +6x =	m(m-1) x m + 8xmx m + 6x m=	o=(8+mm-1)+8m+6)=0	0 ± mx	m2-m + 8m + 6 = 0	m2 + 7m + 6 = 0	F=0, 1=10	9 7 0	
									-				-		,			

$\frac{49-42y}{2}$ $\frac{2}{2}$
2 - 7-1 3 2 - 7-1 3 2 - 7-5 - 7-5 - 7-8
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1202 35.5	(-m K(M)X(2)	+ 6mxm+xm=0	xm(3m(m-1)+6m+1)=0		3m2-3m+6m+1=0	3m +1=0	2 0 1	490		19-12	9		4-3	9	3+131°	9	2 + 1	9 9	1 + 13 6	2	cos 13 (nu) + C2519/12	
	$\chi^{2}m(m-1)\chi^{2}$	3 m (m-1) m 3	xm(3m(m-1)+	W # O	Annual de Criticio de Carto de	3m2+	9 8 = 8	m - bt 162	29	m = -3+			m= -3		M		M		- 1		y = x -1/2 e1/c	
3	Committee of the commit										and Congress and the Co	A CONTRACTOR CONTRACTO										

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(3) TIMITIES	UH (50 X/2 t	7	4 + B(x2 x 2i	2	47 5-21		015 x34111-64=0	をなって	(1	7	9 41 2	n3 m(m-1)(m-2) 1 m-3 - 6 1 m = 0	m(m-1) (m-2) m - 6 m = 0	7	n to the	m3 - 3m2+ 9m-6 20	$m^2(m-3)+a(m-3)=0$	$(m^2 + 2)(m-3) = 0$	Jm 2-1-0	m=+ 12°	m 2 3	4 2 C12 + C2 /21111) C3 Sin	

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1=	3											13									7		

$$m(m-1)(m-2)(m-3)x^{m-4}+6$$

 $m(m-1)(m-2)x^{m-3}$

$$\chi^{m-3}$$
 $m(m-1)(m-2)(m-3)+$ $b_{\chi}m^{-3}(m-1)(m-2)$

$$m^{-3}$$
 $m(m-1)(m-2)(m-3+6)=0$ $m(m-1)(m-2)(m+3)=0$

$$m_1 = 0$$
, $m_2 - 1 = 0$
 $m_3 - 2 = 0$ $m_1 + 3 = 0$

$$m_1 = 0$$
 $m_2 = +1$ $m_3 = +2$

, j		2													
	y"+3xy"+y	$m-4 + 6x^3$		(m-3m+2	0 1 0	m - 6 m	m 2-9 m						sin(10x)+	64 Sin(Inn)	
	9 %			5m+6)+6m(m²-	1+13 xm	6/m3 + 5m	+12/m + 9m		0 11	0			77	+	
	5 x 3 4 11 +	m(m-1)(m-2)(m-3)	m-1 m = 1 x + x	~ 1		~ × ×	18m2+	0 1	+ 2m2+	1 7 1 1		1 +1	C1005(111x)+	({ (3005 (111x)	
	no 18:2-	4 m (m)	t.3 m &+	m/m-zmi	9m Cm	2 6.26	+ 6 m3	+ 3m +	t h w	(M) 2	7 11	M	J (X) 11	Je Inx	
	Q 1	X		35.	1										

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