Assaignment of 5 morells MAT-103 - Ordinary and partial differential equation and coordinate geometrus geometry. equation P-1. Form partial diff. constant by elimenesting orobitre from 2 = (nter) (y+b) Solvi. Birsen Shut 2 = (n+a)(y+b) partially with respect to ox

Dr 2 1. y+b (30 r)p(3)y+billion 22 2 (nta): 10 con granta (m) (G) :. 2 2 9.P August = 10/9 ( P-2

Fiven that,  $\frac{1}{2}$  =  $\frac{1}{2}$  for  $\frac{1}{2}$ Differentiating (i) partially with resoput to 2 and y, We get, 32 2 f' (n'+4). 2ns (1)  $\frac{27}{2\pi} = \frac{32}{2\pi} = \frac{2020 f' s(n'+y')}{27} = \frac{32}{2\pi} = \frac{2020 f' s(n'+y')}{27} = \frac{32}{2\pi} =$ and 32 of (n++m). 2y

27 9 2 24 (n++m) - - han)

Dividing (2) by (3) Reget, pa = 2nfortyr)
2 yfr (nr+ yr) => P/q = 7/y 27 yp 2 xq (p) yp-nq 26 the hourist Ligren Min Michael (i) faillioning Solve: (i) 2/2 + 4 - 5/2 - 5 2/2 / 2 0 (I)  $\frac{3^2}{3x^2} + 5 \frac{3^2}{3x^3} + 4 \frac{3^2}{3x^4} + 20$ Solution of is

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27 (D+400-50) 212 Bish in The avnillary equation is,

my + 4m-520 >> m + 5m - m (N + 200 1 - (P+M) M T 2) m(m+5)-1 (m+5)(20) (1/m) 1= 27 (m+5) (m-1) 20 [M21 or m25]The required solution is 22f, (y+n) + 52 (y-5n) mlymin 21) Solution of (4) given that,  $\frac{\partial^4}{\partial n^2} + 5 \frac{\partial^2}{\partial n \partial y} + 4 \frac{\partial^2}{\partial y^2} = 0$  $\Rightarrow (\cancel{D} + 5 \cancel{D} \cancel{D} + 4 \cancel{D}) + = 0$ 

The ounidlary equation is, m<sup>v</sup> + 5 m + 4 20 Kor Minimo 21 2) m/+4m+m+420 27 m (m+4) + 1 6m + 4) m - m 2 + m = 27 (m+1) (m+4) (2 1246) 1 - (2+m) m (  $\frac{1}{1}$   $\frac{1}{m^2-1}$   $\frac{1}{0}$   $\frac{1}{m^2-4}$   $\frac{1}{2}$   $\frac{1}{2$ The required solution is 2 2 fi ( ) + f2 ( y - 4 w) OF CONTRACTOR TO THE PROPERTY OF THE PROPERTY