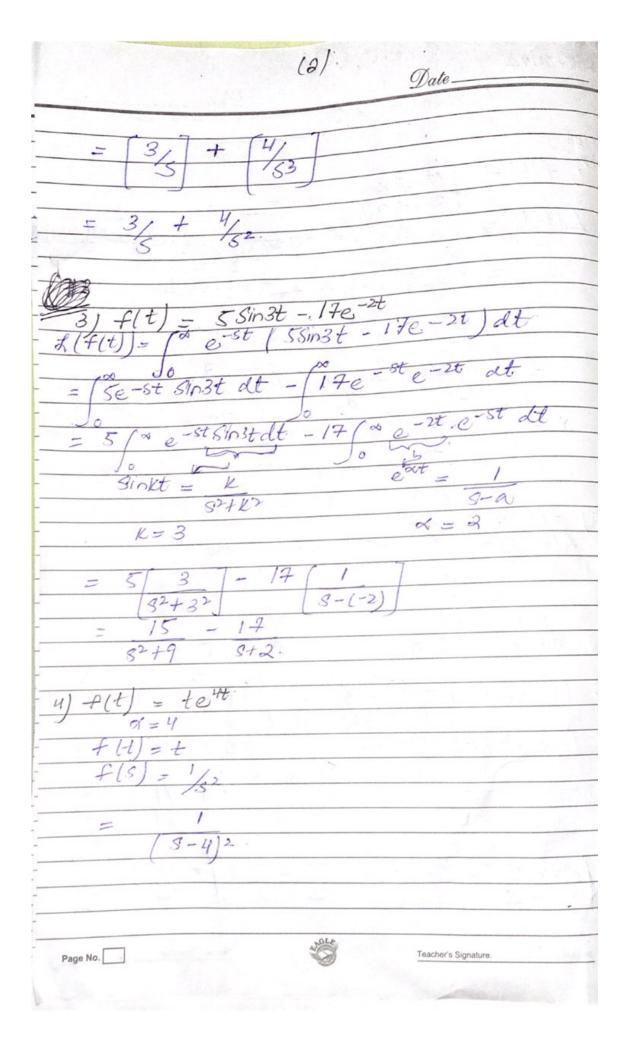
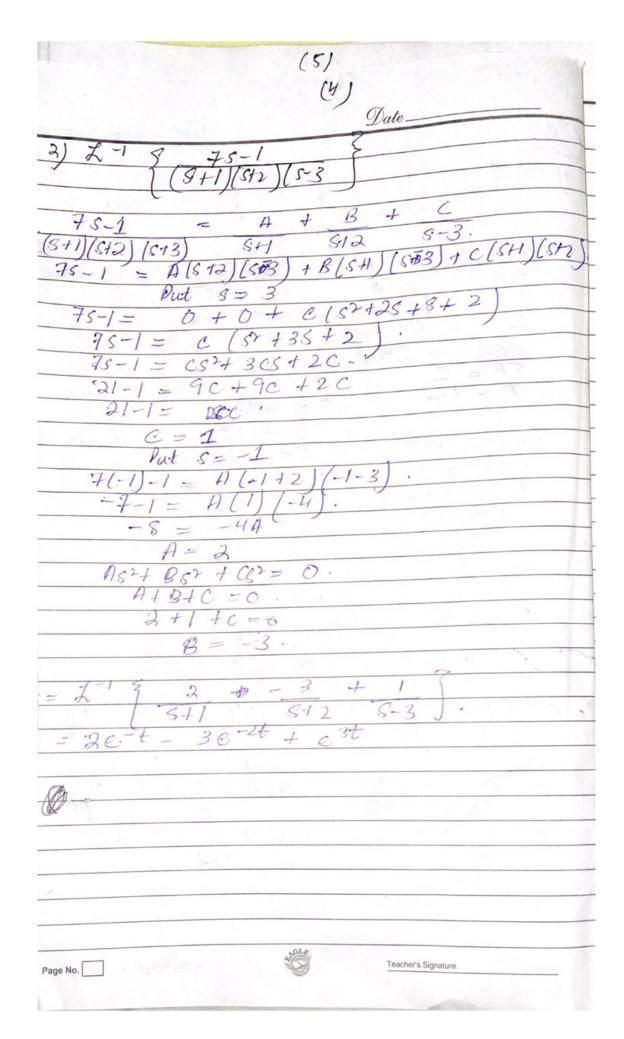
BASIL PLI KHOW! 20K-DUTT	(1) Date
FISSIGNM ENT	
$ \begin{array}{c} (1) & f(t) = \begin{cases} ct \\ 3 \\ t \end{cases} \\ f(t) = \begin{cases} 2 \\ e \end{cases} \\ = \begin{cases} 2 \\ e \end{cases} \\\\e \end{cases} \\\\e$	23 72 -st. et at + se se at dt (2-1) at + se st at 6 + 3e st at -5 a 20 - 3e 35 + 1 + 3e - 5 - 5
$2\int f(t) = 3 + 2t^{2}$ $\chi(f(t)) = \int_{0}^{\infty} uv - \int v$ $u = 3 + 2t^{2}$ $du = 4t dt$	$du = e^{-St}$
(3+2+2)/e-st (3+2+2)/e-st (-5)/o	- 1 (e-st) 1+t dt  - 5 (e-st) 1+
$e^{-1} = 0$ $e^{0} = 1$ $(3+3(x)^{2} e^{-3(x)} + 6$	3+2(0) (e-5(0)) + 4/5 (1/52)
	.010

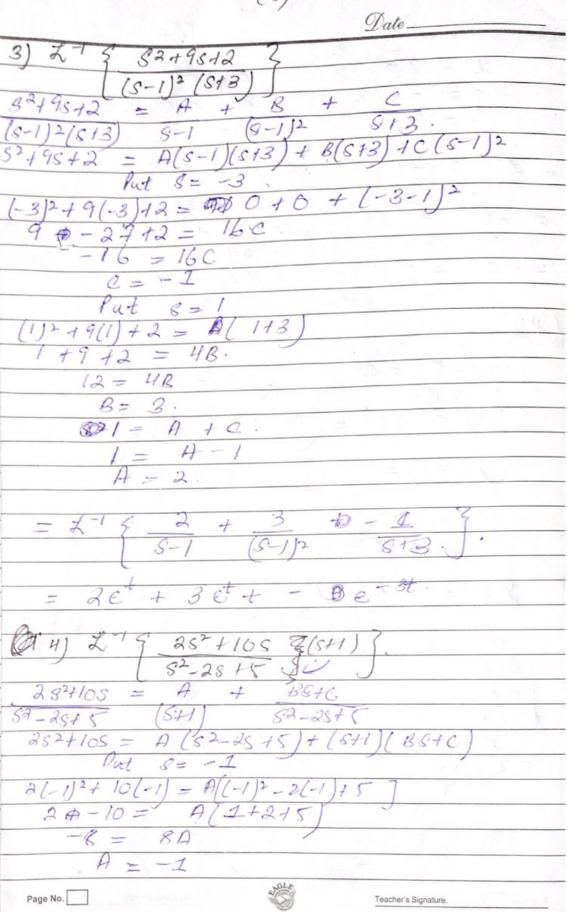


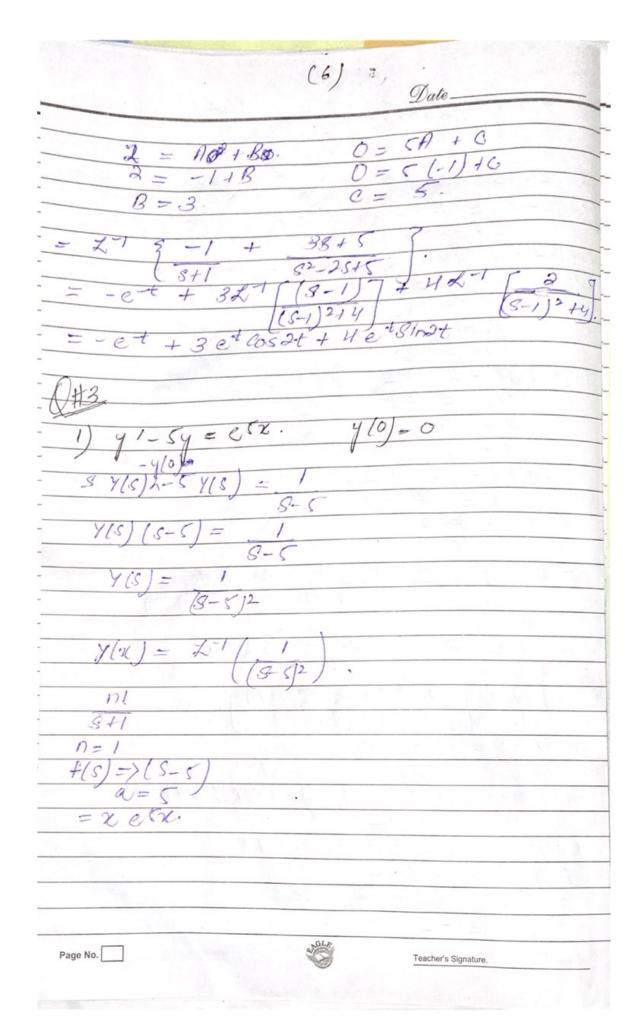
(5)

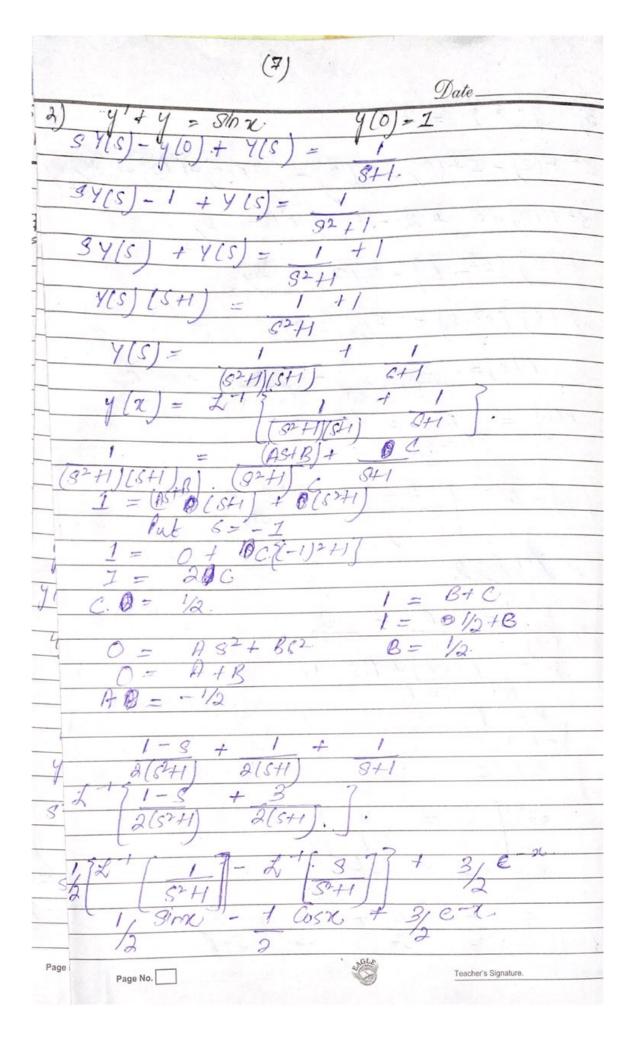
Date  1) 2 1 2 3(52+25+5)
1) 2-13 1 7
1) 2 3 1 2
3/52+26+ 5
1 = A + Bx+C
$\frac{3(s^2 + 2s + 5)}{1} = A(s^2 + 2s + 5) + SB + SC$
I = A(52+25+5) + SBO + SC.
I = AS2+ 2AS+ 5A+ BB + SC.
8.= 0
$5A = 1 \qquad 0 = 3AS + +SC$
A = 1/5 0 = 2A + C
0= 2(1/5)+0
AS2+BS2 = 0. C= -2/5
A+B=0
1/5+B=0
B=-1/5.
, - (0, )
= 1 - S + 3
$= 1 - \left( \frac{5(s^2 + 2s + 5)}{s + 2} \right)$
55 5(5+1+25+4)
= 1 - \ S+ H+1 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
= 2 1 11/11/11 - 1 4-18/11 7. 2-16/1
5 5 5 /E RAIDAY 1 1822 19
3 (371) 47
- 1, c-t(00)++12-1(0)
5 5 50 15019
= 1/2 = 1/e Cos2t + 1/e = Cos2t.
5 /5 /10

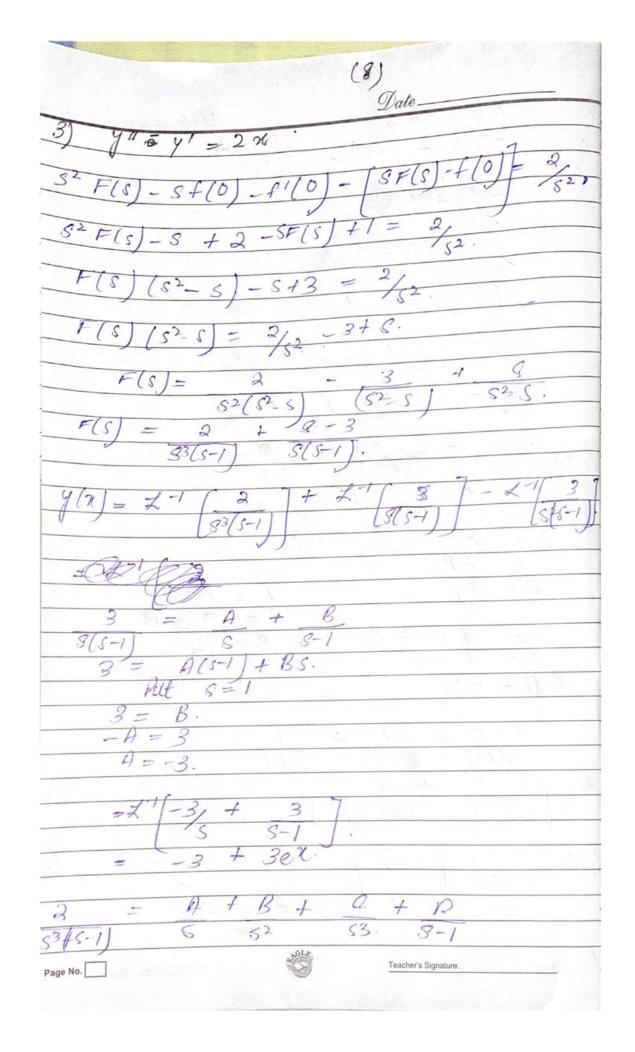
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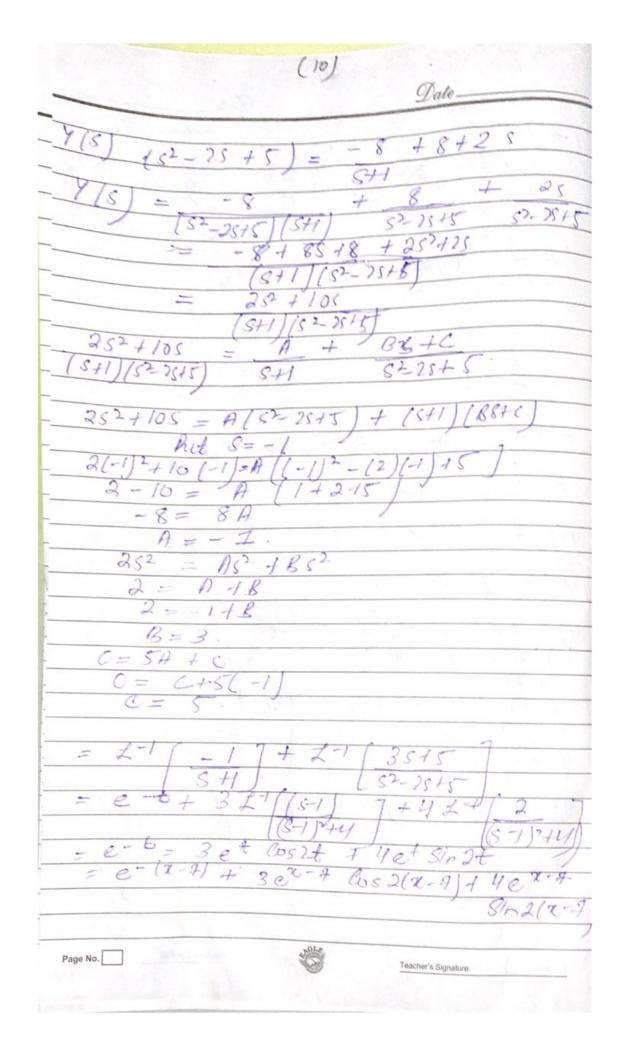




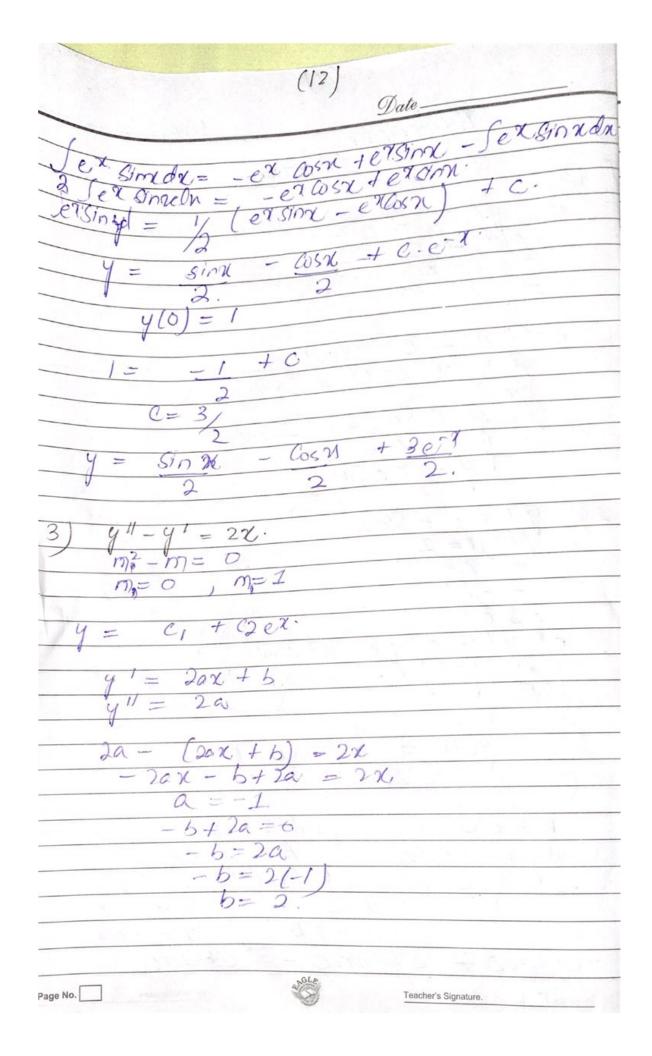
(2)

Date\_

 $= 2^{-1} \begin{bmatrix} -2 - 2 & -2 & +2 \\ 5 & 52 & 53 & 5-1 \end{bmatrix}$   $= -2 - 22 - 2^{2} + 2e^{2}$ y(n) = -2-2x -nr+2ex -13-3e7.  $(1) = 1 - \chi^2 - 2\chi$ 4)  $y'' - 2y' + 5y = 8e^{7-x}$ . y"-2y1+5y=-(e-(t++)+7. y"-24/154= -86-6 s<sup>2</sup> y(s) -2s + 5y(s) -12 - 25 y(s) +(4) = Page No. Teacher's Signature.



(41)
Date
ANAYTICAL NENDO.
N/ENHOD.
D#3
y'-y=esx
P(x) = 5
= Se-500 = e-500
e-52 y'- e52 y=1
d (y · e-sx) = I.
Ox
$\frac{d}{dy} \left( y \cdot e^{-5x} \right) = 1.$ $\frac{d}{dy} \cdot e^{-5x} = \int L dx.$ $\frac{d}{dy} \cdot e^{-5x} = x.$ $\frac{d}{dy} \cdot e^{-5x} = x.$
$y \cdot e^{-s} c = \lambda$
J Leik
2) 41+4 = S/mc.
$\frac{2}{p(x)} = \frac{1}{2}$ $= \frac{1}{2} = \frac{1}{2}$
= 01
ery tery = ersina
de (yez) = (ersina da
V
yell = Jet Sinn da
uv- Ivan
$u = e^{\chi}$ $e^{\chi} = Sing$
$du = e^{\chi} d\chi \qquad = -\cos\chi.$ $-e^{\chi} \cos\chi + \int e^{\chi} \cos\chi d\chi.$
11 2 2/1
V = COSX
- colose + ex sind - fexcing.
, vere
Page No Teacher's Signature.



Date\_\_\_\_

y = - 2 - 2 az + 1

4) y"- ny + sy = -8e +x.

 $m^2 - 2m + 5 = 0$  $m = 1 \pm 2i$ 

Yo = et (Ci Coszt + Cz cinzt).

 $yp = -8e^{-t}$  t = n - t  $yp = Ae^{-t}$   $y'p = -Ae^{-t}$   $y'p = -1 \cdot (-Ae^{-t})$ 

Aet = - 8et = - 8et

1p= -e-t

= et (C, Cos2t + (2012t) 0 e - t. y(+0) = 2 + 2 => y(0) = 7

 $y = e^{\circ} (GGS2(0) + C_{7}GD(0) - e^{-\circ}$   $C_{1} = 3$ 

(14) Date y'(7) = 12 = 3 y'(0) = 112  $y'= -6 \sin 2t + 3e^{t} \cos 2t + e^{t}$   $C_{2} \sin 2t + 2C_{3} \cos 2t$   $C_{2} \sin 2t + 2C_{3} \cos 2t$   $C_{3} \sin 2t + 2C_{3} \cos 2t$   $C_{4} \cos 2t + 2C_{3} \cos 2t$   $C_{5} \sin 2t + 2C_{5} \cos 2t$   $C_{7} \sin 2t + 2C_{5} \cos 2t$   $C_{7} \sin 2t + 2C_{5} \cos 2t$   $C_{7} \sin 2t + 2C_{5} \cos 2t$ C2 = 4 = e+ (3Cos2t+4Sm2t )-e-t y = ex-7(3Cos 2(x-2)+4Sm2(x-7)-e-tx-9