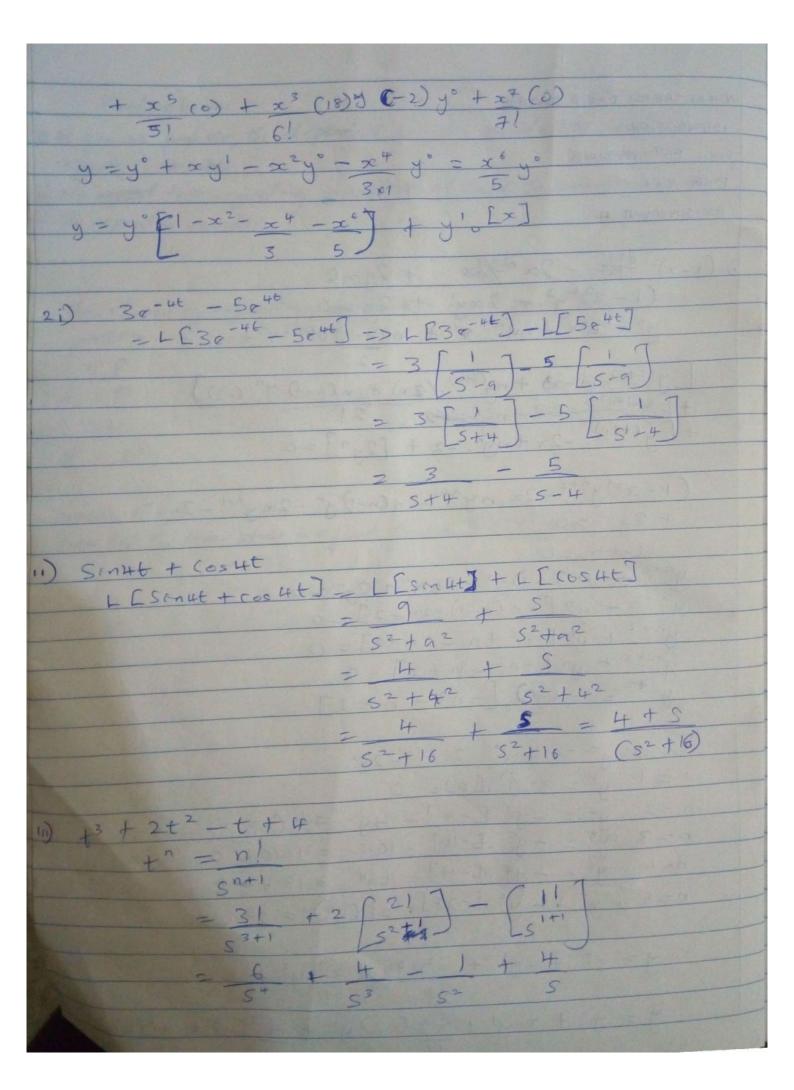
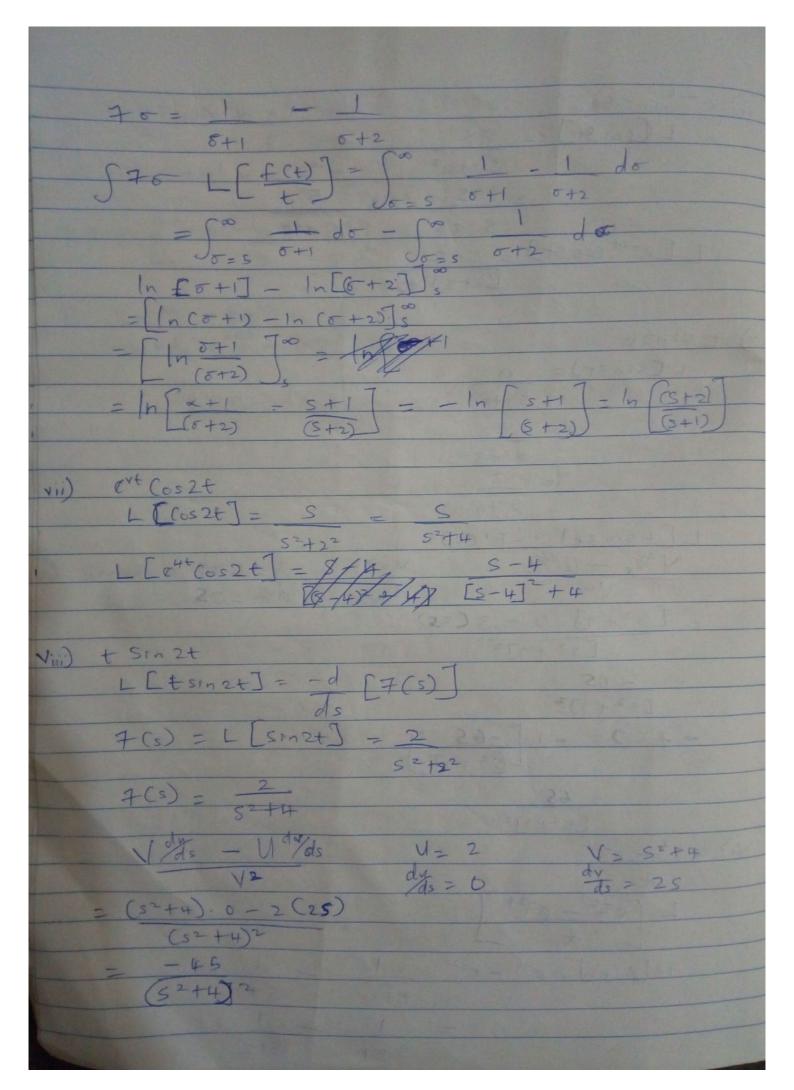
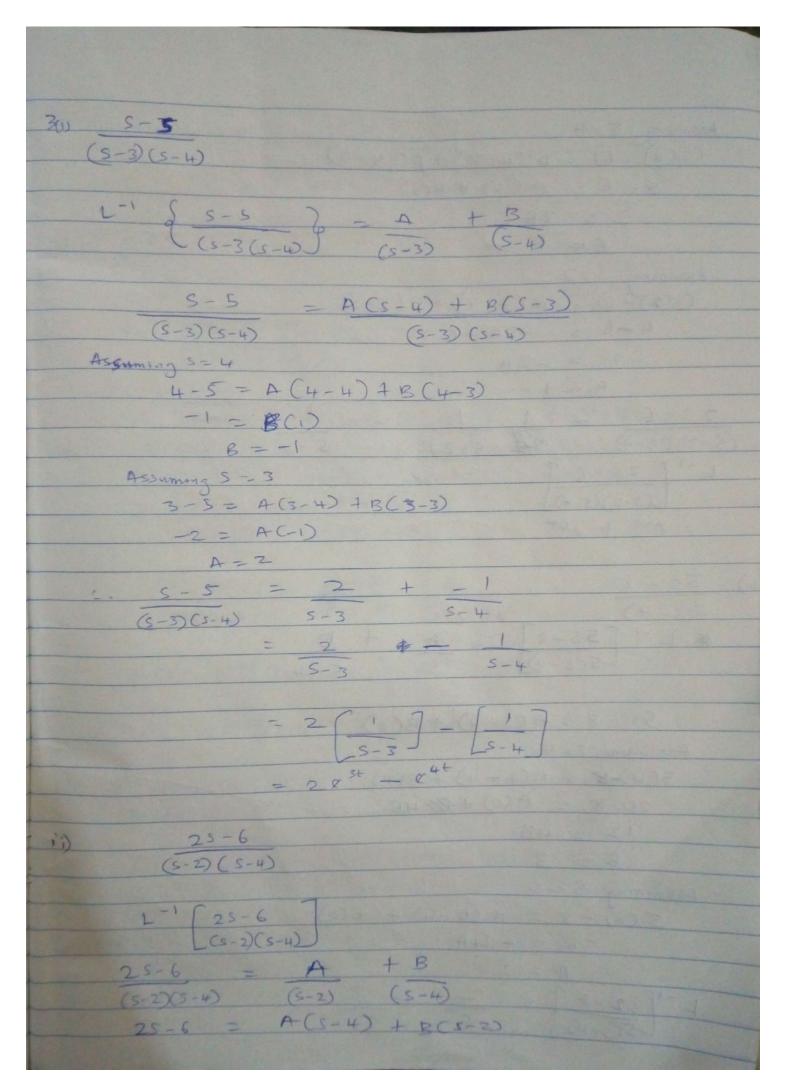
```
NSIKAK-ABASI DAVID ELIJAH
15/FN9037011
CIVIL ENGINEERING
 ASSIGNMENT 4
D (1-x)2 din - 2x dy/dx + 2y=0
      \frac{(1-x)^{2}y^{2}-2xy'+2y=0}{y^{n}=u^{n}y'+nu^{n-1}y'+n(n-1)u^{n-2}y^{2}+\cdots-\cdots}
   (1-x2)yn+2-2x.nyn+1-n(n-1)yn-2xyn+1-2nyn
    + 2+ =0
    yntz _ n (n-1) yn - 2n yn + 2yn -0
      n+2 + yn[-n(n-1)-2n+2]=0
     yn+2+ yn[-n2-n+2]=0
      n+2 = - (4) [-n2-n+2]
   n=01y2= -y0,2= -2y0
    n=1 'y3 = -J'. [0] = 0
             = - J2. E-4] = 4y2 = .4 (-2y0) = -80°
    n-2 y^{+} = -y^{2} \cdot L^{-4} - y^{3} = 10.0 \pm 0
n-3 y^{5} = -y^{3} \cdot L^{-10} = 10y^{3} = 10.0 \pm 0
    n=4 y6= -y4. [-18] = 10y4 = 18.4 = 2. y°
    n-5: 4= - 45.[-28] = 28(45) = 28-0=0
      y = y° + xy' + x2 (-2) y° + x3(0) + x4(4)(-2) y°
```



1 COS 5+ L CrosstJ = [8-2+ (05 5t) = 5+2 [5+2]2+25 v) t sinst L [sin3t] = a V=3 V=52+9 dyg=0 dyds = 25 [52+9]. 6-3 (25) [52+9]2 5+9



(3+ (+3+4) x1) +2 €05 + L[t2(ost] = +2 L(cost) = S 7(5) = 5



(ontid of number 3 Assuming S = 4 (2(4)-6) = A (4-4) + B(4-2) 8-6 = A(0) + B(2) 2 = 28 B= 1 Assuming S=2 (2(2)-6) = A(2-4)+B(2-2) 4 - 6 = -2A + 0-2 = -2A55 - 8 5(5-4) -1 555-8 55-8-ACS-4)+B(s) 5(4) = A(4+4) + B(4) 20-8 = A(0) + 84 4B 12 = 4B 5 (a) -8 = A (0 -4) + B(a) -8 = - 4A

