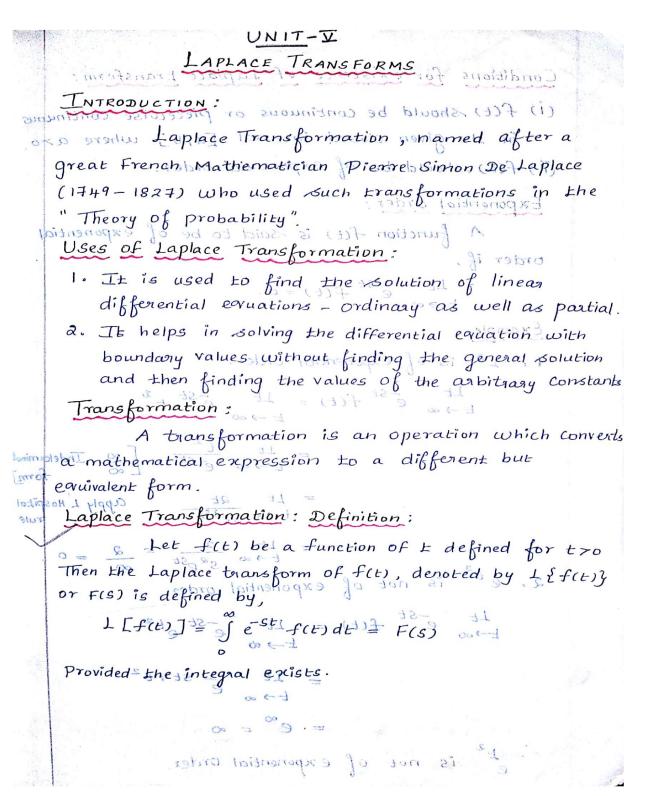


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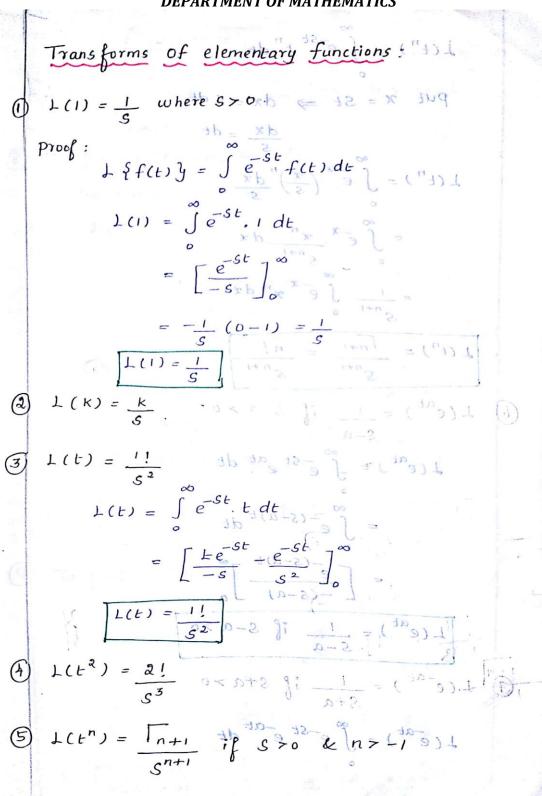
Conditions for existence of Laplace transform:
(i) f(t) should be continuous or piecewise Continuous
in the given closed interval [a,b] where a>0
(ii) f(t) should be of exponential order.
Exponential order:
A function -f(t) is said to be of exponential
order if,
differential enables southers continue of linear
a. It helps in solving the differential costamers with
noistal is of exponential order work working
and then finding the values of the arbitrary constants
Let e^{-st} $f(t) = Lt$ e^{-st} e^{-st} e^{-st} e^{-st}
A transformation is an operation which donverted
Jud anaraffile a de total etstant w Indekuming form
= Lt 2t apply L Hospito
ext rot beniss de la noissant a let (12 10 1 2 0 2
$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Provided SHE 20 tegnal & Itistis.
t→ ∞ e
$=e^{\infty}=\infty$
e is not of exponential order.
e of contract order.





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$$L(t^{n}) = \int_{0}^{\infty} e^{-St} t^{n} dt$$

$$\frac{dx}{dt} = dt$$

$$L(t^{n}) = \int_{0}^{\infty} e^{-X} \frac{x^{n}}{s^{n+1}} dx$$

$$= \int_{0}^{\infty} e^{-X} \frac{x^{n}}{s^{n+1}} dx$$

$$= \int_{0}^{\infty} e^{-X} \frac{x^{n}}{s^{n+1}} dx$$

$$= \int_{0}^{\infty} e^{-X} x^{n} dx$$

$$= \int_{0}^{\infty} e^{-X} x^{$$





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